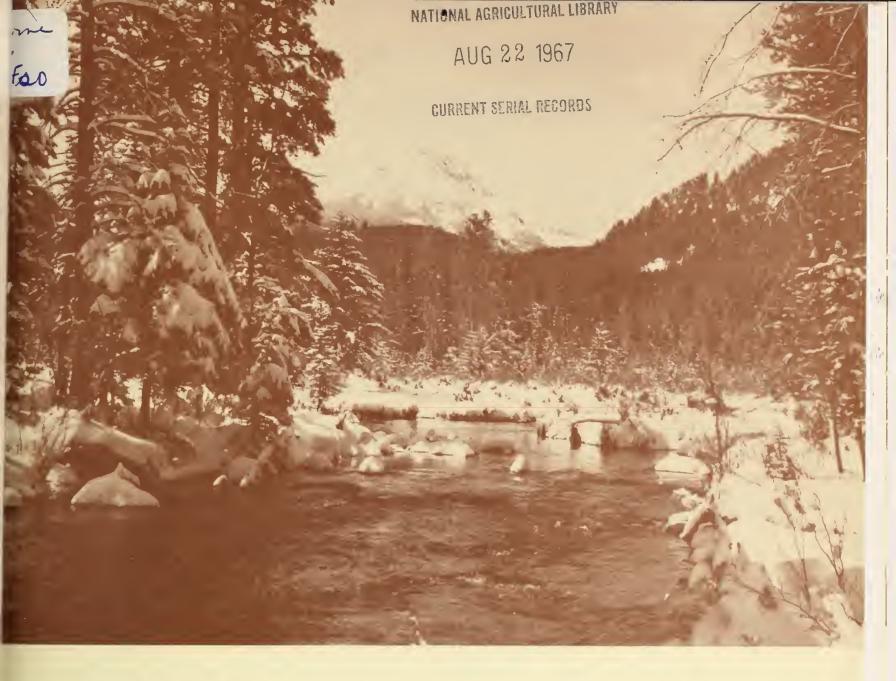
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Do not assume content reflects current scientific knowledge, policies, or practices.





WATER SUPPLY OUTLOOK FOR OREGON

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE

and

OREGON STATE UNIVERSITY

and

STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above in cooperation with other Federal, State and private organizations.



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data or reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Listed below are water supply outlook reports based on Federal-State-Private Cooperative snow surveys. Those published by the Soil Conservation Service may be obtained from Soil Conservation Service, Room 507, Federal Building, 701 N. W. Glisan, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

D. A. WILLIAMS, Administrator

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 507, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	P. O. Box 38, Boise, Idaho 83701
Montana	P. O. Box 855, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4001 Federal Building, Salt Lake City, Utah 84111
Washington	840 Bon Marche Bldg., Spokane, Washington 99206
Wyoming	P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

WATER SUPPLY OUTLOOK for OREGON

and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

ISSUED

MAY 8, 1967

Report prepared by

W. T. FROST, Snow Survey Supervisor

ana

TOMMY A. GEORGE, Assistant Snow Survey Supervisor

SOIL CONSERVATION SERVICE 1218 S.W. WASHINGTON ST. PORTLAND, OREGON 97205

Issued by

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STATE CONSERVATION IST
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G. BURTON WOOD

DIRECTOR
OREGON AGRICULTURAL
EXPERIMENT STATION

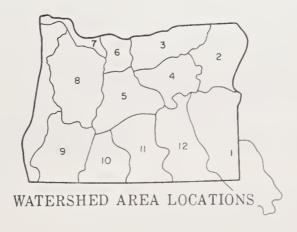
CHRIS L. WHEELER

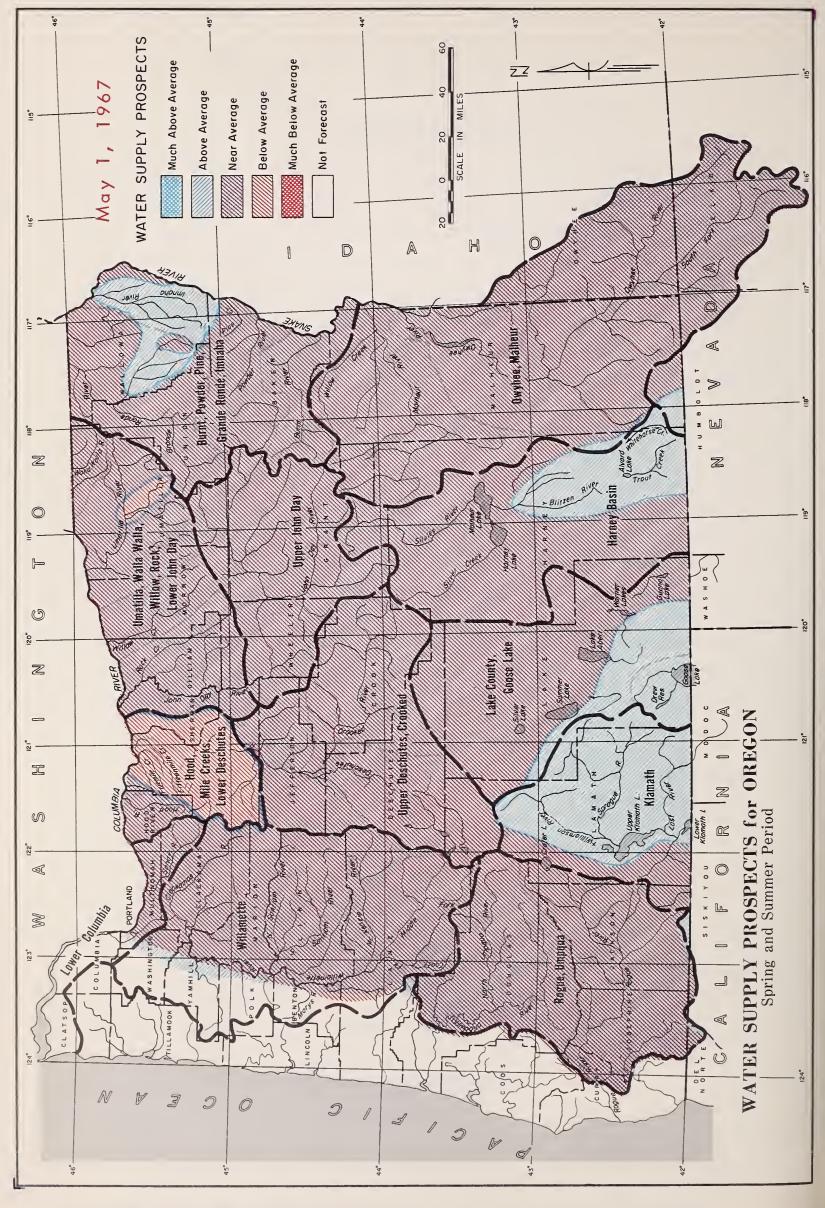
STATE ENGINEER
STATE OF OREGON



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WATER SUPPLY OUTLOOK for OREGON

May 1, 1967

Farmers, ranchers and other water users in most of the State will have average water supplies this summer. Some areas in the north central part of the state will have below average water conditions, however, stored water supplies in the state are satisfactory in most cases and soil moisture conditions are excellent.

PRECIPITATION

Statewide precipitation in April ranged from 151 percent to 234 percent of average in the south half of the State and varied from 100 percent to 166 percent of normal in the north half of the State east of the Cascades. The Willamette Valley received the least amount, 91% of average, according to the U. S. Weather Bureau.

SNOW COVER

Colder than usual temperatures, combined with the heavy precipitation during the month, produced a snowpack considerably above average for May 1, according to the USDA, Soil Conservation Service. Heaviest snowpacks for May 1 exist along the southern tier of counties in the State, while the lowest are located in the Hood River and Mile Creeks area near The Dalles.

SOIL MOISTURE

Soil moisture in the upper watersheds under the snowpack is excellent. Only a small part of the snowmelt will be absorbed by the soil mantle as runoff begins.

RESERVOIR STORAGE

Water stored in 23 irrigation reservoirs now totals 2,301,500 acre feet or 96 percent of the usual amount on hand at this date. Although most Oregon reservoirs contain adequate water for the 1967 season, McKay and Wallowa Lake have very low storage this year. Water supplies from McKay will be deficient. Wallowa Lake will provide adequate supplies when the above average high elevation snow-water is released.

STREAMFLOW

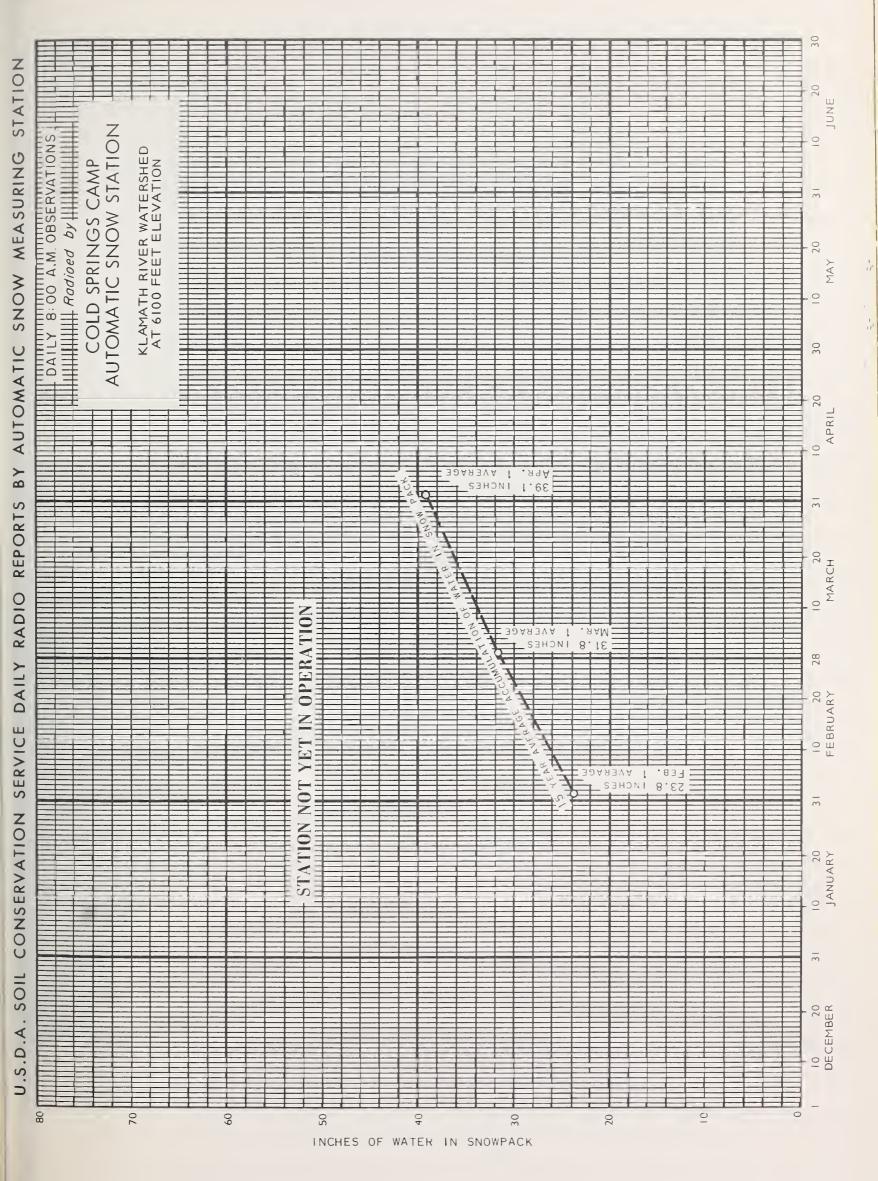
Below average May-July streamflows are expected in the Hood River-Wasco areas where the Hood River and White River are forecast at 88 percent and 76 percent respectively.

continued --

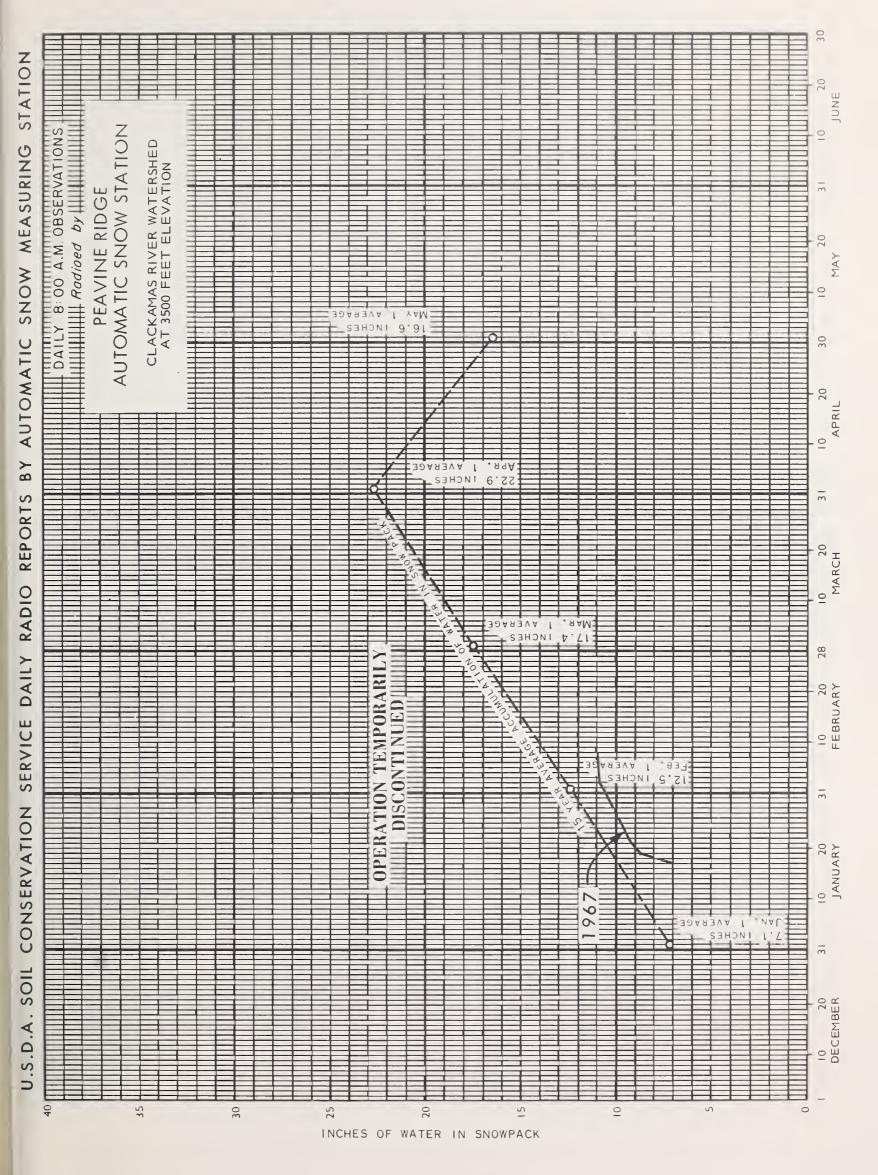
Streams flowing from the Wallowa mountains and those in the Klamath, Lake County and Harney Basins will produce May-July flows close to 120%. Most other streams in the State are forecast at 90% to 100% of average for the May-July period.

The above estimates of water supply and streamflow are based on the assumption that near average conditions of temperature and precipitation will prevail from now to the end of the season.





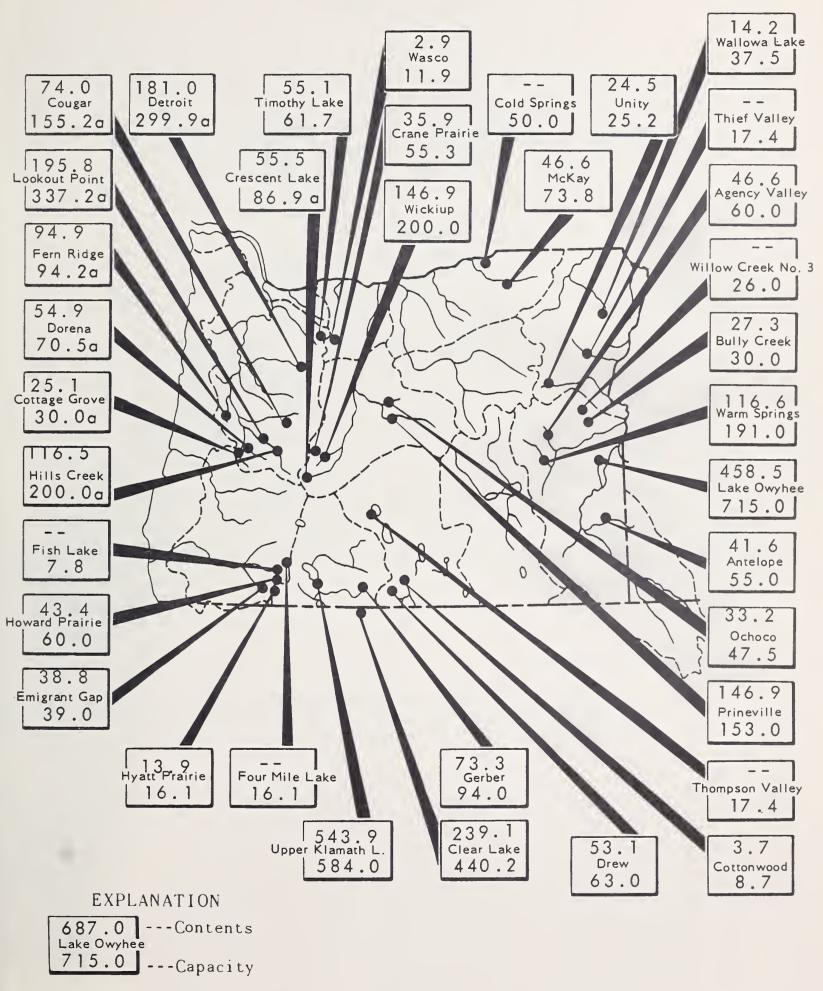
STATION UPPER DESCHUTES RIVER WATERSHED AT 5500 FEET ELEVATION AUTOMATIC SNOW STATION DAILY 8:00 A.M. OBSERVATIONS U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING IRISH-TAYLOR 30 9.44 MARCH 3.7£ 28 10 20 FEBRUARY 10 20 JANUARY 10 20 DECEMBER 80 70 9 20 40 30 20 INCHES OF WATER IN SNOWPACK



30 STATION MIDDLE FORK WILLAMETTE RIVER WATERSHED AT 5600 FEET ELEVATION JUNE AUTOMATIC SNOW STATION BY AUTOMATIC SNOW MEASURING WILLAMETTE PASS 0 30 REPORTS MARCH SERVICE DAILY RADIO STATION NOT YET IN OPERATION 28 10 20 FEBRUARY 28.85 .837 CONSERVATION U.S.D.A. SOIL 80 П 70 9 0 50 20 04 30 INCHES OF WATER IN SNOWPACK

STORAGE STATUS of OREGON RESERVOIRS usable contents in thousands of acre feet

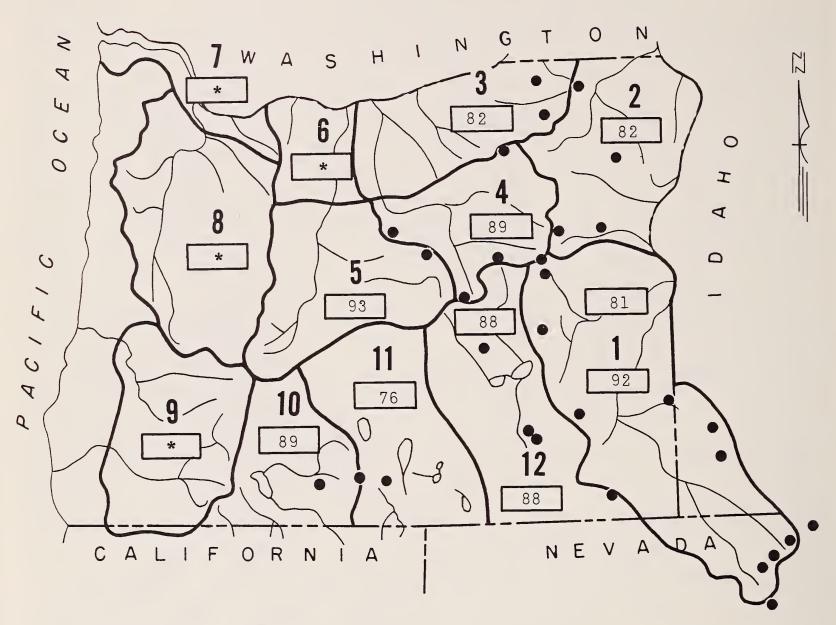
May 1, 1967



⁽a) Multiple purpose reservoir - space reserved for flood runoff.
N. R. - No report.

MOUNTAIN SOIL MOISTURE in OREGON as percent of capacity

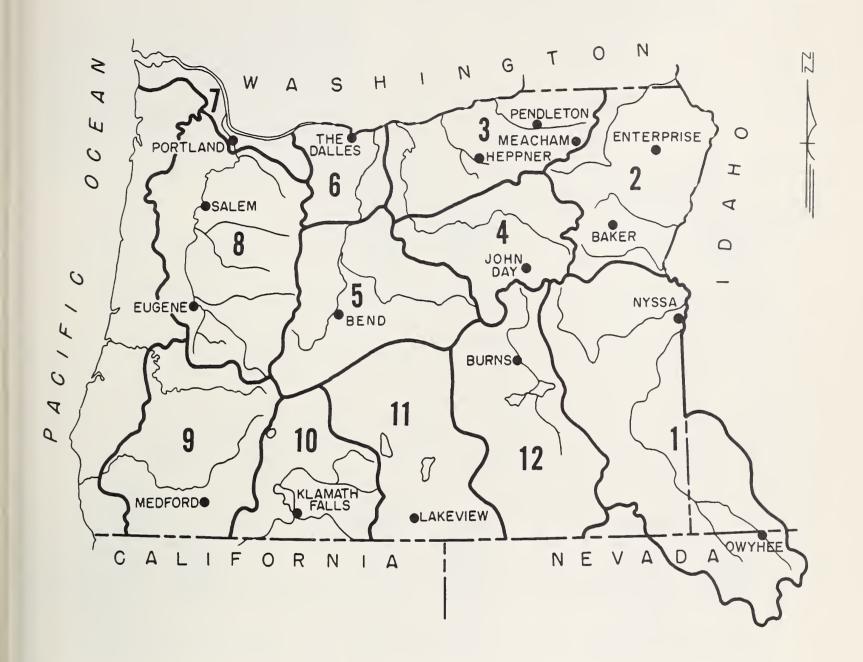
May 1, 1967



Soil Moisture Station

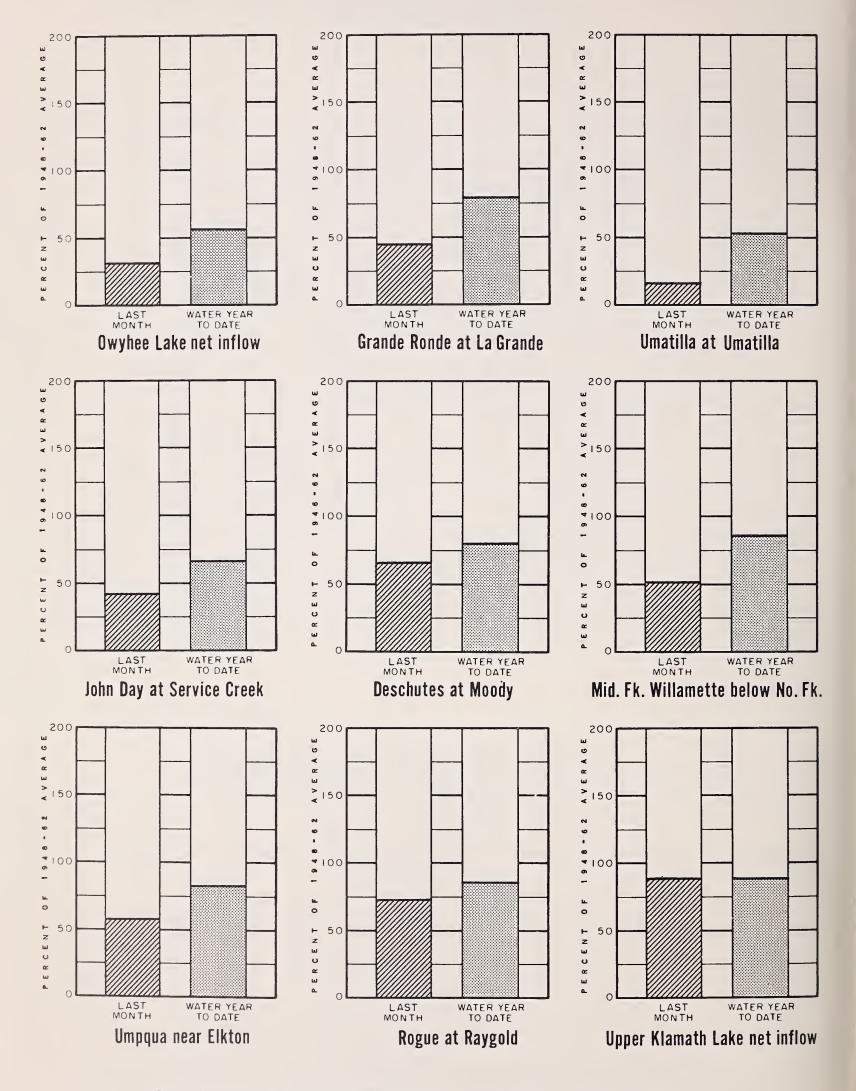
*Moisture studies not yet developed in these areas.

VALLEY PRECIPITATION in OREGON a May 1, 1967



PRE	PRECIPITATION as PERCENT of the 1948-62 AVERAGE										
STATION	LAST MONTH	WATER b YEAR TO DATE	STATION	L A S T MON TH	WATER b YEAR TO DATE						
BAKER APT. BEND BURNS ENTERPRISE EUGENE APT. HEPPNER JOHN DAY KLAMATH FALLS APT.	185 356 193 146 142 174 212 218	122 106 130 106 100 116 117 103	LAKEVIEW MEACHAM MEDFORD APT. NYSSA PENDLETON APT. PORTLAND APT. SALEM APT. THE DALLES OWYHEE (NEV.)	232 99 202 228 95 92 84 123 251	127 120 118 101 99 93 66 73 101						

CURRENT OREGON STREAMFLOW May 1, 1967





WATER SUPPLY OUTLOOK OWYHEE, MALHEUR WATERSHEDS

OREGON

as of

May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, ranchers and other water users in Malheur county can expect average water supplies this spring and summer. Stored water supplies in addition to expected May-July runoff will prove adequate. Substantial precipitation during April has increased the forecasts from last months estimates. Streamflow has been low due to cold weather but will pick up as soon as warmer temperatures are experienced.

SNOW COVER

Colder than normal temperatures in addition to 200% of average precipitation for April increased the water content of the snowpack at the higher elevation snow courses. Normally by May 1 much of the snow has melted but the above factors have combined to give us a snowpack considerably above average for May 1.

SOIL MOISTURE

The soil moisture is now about 81% of average on the Malheur and about 92% of average on Owyhee watershed. This is above average.

RESERVOIR STORAGE

Water stored in Lake Owyhee on May 1 amounted to 458,500 acre feet compared to 630,200 acre feet last year.

Antelope Reservoir currently contains 41,600 acre feet compared to 31,500 acre feet a year ago and will provide a better operation for the Jordan Valley Irrigation District than last year.

Total storage in Warmsprings, Agency Valley and Bully Creek reservoirs was 193,200 acre feet on May 1 compared to 231,400 a year ago and when combined with the streamflows expected in the next three months will provide a sufficient water supply.

STREAMFLOW

Flow of the Malheur River near Drewsey for May-July is forecast at 40,000 acre feet or 118% of average. The North Fork at Beulah will produce 36,000 acre feet during the same period or 109% of average.

Inflow to Lake Owyhee has been very late this year, however, 152,000 acre feet is still expected during the May-July period. This is 90% of average. Jordan Creek is forecast at 100,000 acre feet for May-July or 102% of average.

These forecasts assume near average conditions of precipitation and temperature will prevail during the forecast period.

WATER SUPPLY OUTLOOK expressed as "Poar", "Fair" "Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

	FLOW	PERIOD	RESERVOIR	USABLE	MEASURED (First of Month)		
STREAM or AREA	SPRING SEASON	LATE SEASON	RESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	1948-62 AVERAG
Boulder Creek Bully Creek Cow Creek Jordan Creek Jordan Valley Irrig. Dist. McDermitt Creek Oregon Canyon Creek Owyhee Project Succor Creek Tenmile Creek Vale-Oregon Irrig. Dist. Warmsprings Irrig. Dist. Willow Creek (Reservoired)	Spring peak flows will occur this month	Average Fair Fair Average	Agency Valley Antelope Bully Creek Lake Owyhee Warmsprings Willow Creek #3	60.0 55.0 30.0 715.0 191.0 26.0	46.6 41.6 27.3 458.5 116.6 b	43.2 31.5 20.8 630.2 167.4	51.2 28. 553. 128.

STREAMFLOW FORECASTS "(1,000 Ac. Ft.) as of May 1, 1967

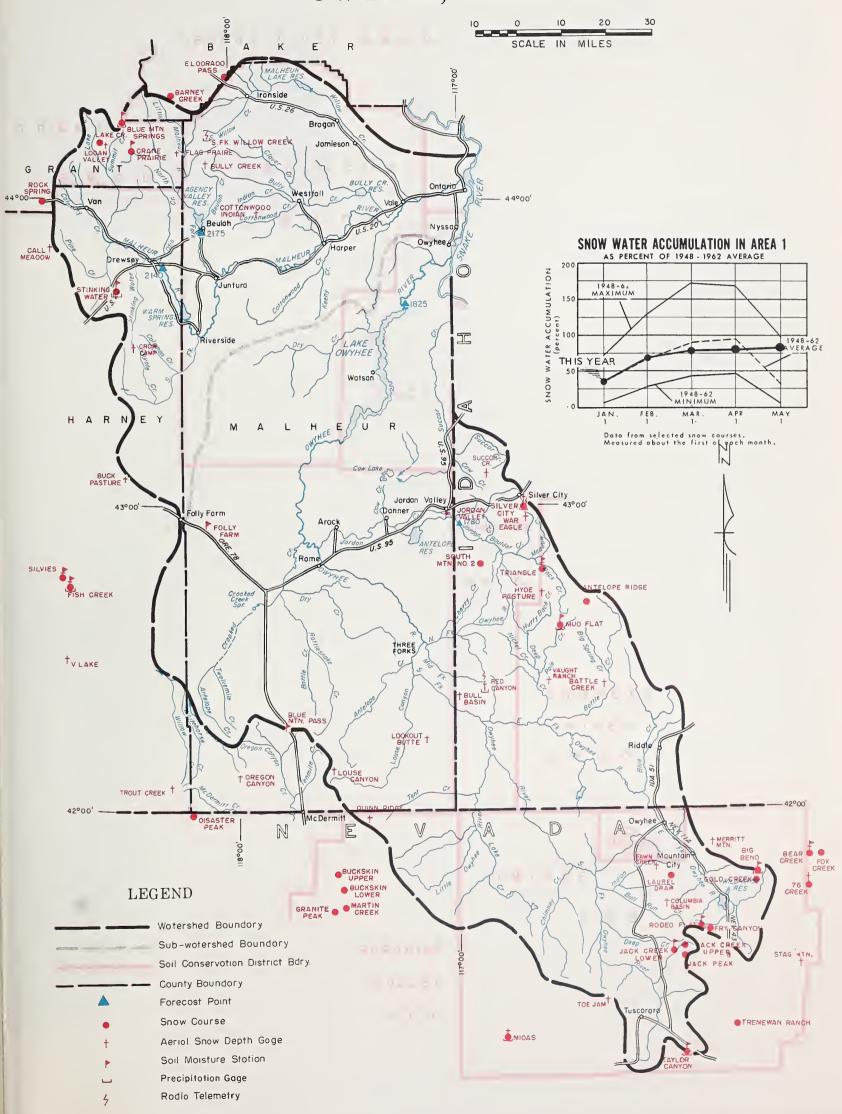
NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ¹
1780 2140	Jordan Creek above Lone Tree Creek Malheur near Drewsey	100 40	April-July May-July	98 34	102 118
2175	Malheur, North Fork at Beulah ^d	42 36 40	May—Sept. May—July May—Sept.	35 33 38	120 109
1825	Owyhee Reservoir net Inflow ^k	152 175	May-July May-Sept.	168 184	105 90 95
		1			

OIL MOISTURE		PROFILE	(Inches)		SOIL MOISTUR	RE (Inches)		
STATION	STATION DEPTH CAPACITY		DATE	THIS	LAST	2 YEARS		
NAME	ELEVATION	DET TIT	J CALACITI	VAIL	YEAR	YEAR	AGO	
Bear Creek (Nev.)	7800	72	16.8	3-30-67	10.1 f	12.1 f	14.4 f	
Big Bend (Nev.)	6700	48	16.7	4-27-67	15.9	16.5	16.7	
Blue Mountain Springs	5900	42	16.9	4-28-67	12.1	12.8	13.5	
Crane Prairie	5375	48	18.2	4-28-67	16.4	17.9	18.0	
Folly Farm	4450	30	12.5	ь				
Jack Creek, Lower (Nev.)	6800	48	8.6	4-28-67	8.3	8.1	8.4	
Jordan Valley	4390	48	19.3	b				
Mud Flat (Ida.)	5500	48	12.8	3-28-67	14.4 f	14.4	14.2	
Rodeo Flat (Nev.)	6800	42	11.0	5-1-67	9.2	11.0	11.0	
Stinking Water Summit	4800	48	21.9	b				
Taylor Canyon	6200	48	15.1	4-28-67	13.2	14.9	15.0	
Triangle (Ida.)	5150	48	16.6	ь				

NOW		CUR	RENT INFORMA	TION	PAST RECORD		
SNOW COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONTENT (Inche		
NAME	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	1948-62 AVERAGE	
Antelope Ridge (Ida.)	5900	С					
Barney Creek	5950	4/28	33	10.6			
Battle Creek (Ida.)	5700	c					
Bear Creek (Nev.)	7800	5/1	77	27.0	10.2	21.0 h	
Big Bend (Nev.)	6700	4/27	T	Т	0.0	1.3 h	
Blue Mountain Springs	5900	4/28	51	17.5	0.0	7.8 m	
Buck Pasture	5700	С					
Buckskin, Lower (Nev.)	6700	с					
Buckskin, Upper (Nev.)	7200	С					
Bull Basin (Ida.)	5600	С					

⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (l) Ground measurement. (m) Average for 5 or more years in base period.

OWYHEE, MALHEUR WATERSHEDS



low		CUR	RENT INFORMA	TION	-PAST RECORD		
SNOW COURSE		DATE OF	SNOW DEPTH	WATER CONTENT	WATER CONTENT (In		
NAME	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	1948-62 AVERAGE	
Bully Creek	5300	С					
Call Meadow	5340	с					
Columbia Basin (Nev.)	6650	с					
Cottonwood-Indian	4320	С					
Crane Prairie	5375	С					
Crow Camp	5500	С					
Disaster Peak (Nev.)	6500	С					
Eldorado Pass	4600	4/28	0	0.0	0.0		
Fawn Creek (Nev.)	7000	c					
Fish Creek	7900	c					
Flag Prairie	4750	С					
Fox Creek (Nev.)	6800	c					
Fry Canyon (Nev.)	6700	5/1	18	6.0	0.0	1.1 %	
Gold Creek (Nev.)	6600	4/27	0	0.0	0.0	0.0 h	
Granite Peak (Nev.)	7800	c c		0.0	0.0	0.0	
Hyde Pasture (Ida.)	5800	С					
Jack Creek, Lower (Nev.)	6800	4/28	T	T	0.0	0.0	
Jack Creek, Lower (Nev.)	7250	4/28	38	11.7	0.0	3.5	
Jacks Peak (Nev.)	8420	4/28	101	31.5	20.1	28.5	
Lake Creek	5120		20	7.6	20.1	20.0	
Laurel Draw (Nev.)	6700	4/ _c 27	20	7.0			
Logan Valley	5100	с					
Lookout Butte	5650	С					
	6440	С					
Louse Canyon Martin Creek (Nev.)	6700	С					
Merritt Mountain (Nev.)	7000	с					
Merritt Mountain (Nev.) Midas (Nev.)	7200	с					
	5500	С					
Mud Flat (Ida.)	6950	С					
Oregon Canyon	6300	с					
Quinn Ridge (Nev.) Red Canyon (Ida.)	6500	с					
	5100	4/28	8	2.9	0.0		
Rock Spring Rodeo Flat (Nev.)	6800	5/1	15	4.6	0.0	1.4	
Rodeo Flat (Nev.)	7100	The state of the s	13	4.0	0.0	1.4	
		C = 1.0	4.7	170		6.1	
dilver City (Ida.)	6400	5/2	47	17.9	0.0	P ■ T	
	6900	C 4.150		14.5		3.8	
South Mountain #2 (Ida.)	6340	4/29	44	14.2		3.8	
Stag Mountain (Nev.)	7800	С					
Stinking Water	4800	с					
Succor Creek (Ida.)	6100	C 4 1 0 0		0.0	0.0	0 0	
Caylor Canyon (Nev.)	6200	4/28	0	0.0	0.0	0.0	
Toe Jam (Nev.)	7700	C 4 / 97		0 0	0.0	0.0	
Fremewan Ranch (Nev.)	5700	4/27	0	0.0	0.0	0.0	
Priangle (Ida.)	5150	С					
Frout Creek	7800	С					
'V'' Lake	6600	С					
Vaught Ranch (Ida.)	5950	С					
War Eagle (Ida.)	7700	С					



WATER SUPPLY OUTLOOK BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS OREGON

as of May 1, 1967

U.S.D.A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Average to above average water supplies can be expected this summer by farmers, ranchers and other water users in Baker, Union and Wallowa counties. Runoff was delayed during April by cold temperatures but should pick up as the spring season progresses. Best supplies will be those furnished by streams draining from the Wallowa Mountains.

SNOW COVER

Water content of the mountain snowpack is considerably above average for May 1 due to cold temperatures, above normal precipitation and lack of the usual melt during April.

SOIL MOISTURE

Soil moisture is now about 82% of average on the upper watersheds. The excellent soil moisture will enhance the runoff.

RESERVOIR STORAGE

Storage in Wallowa Lake is 14,200 acre feet or 68% of average. This low storage will be helped substantially by expected above average streamflow.

Unity Reservoir was storing 24,500 acre feet as of May 1 or 108% of average.

STREAMFLOW

The May-June flow of the Burnt River is forecast at 22,000 acre feet or 124% of the 15-year average (1948-62).

Expected flow of the Powder River is 53,000 acre feet or 122% of the average May-July.

Approximately 107,000 acre feet of water is forecast to flow past the gaging station on the Grande Ronde near La Grande. This is 91% of the average May-July streamflow.

Catherine Creek and other streams originating in the Wallowa Mountains are expected to produce above average flows during the remainder of this year.

These forecasts assume that near average conditions of precipitation and temperature will prevail in the forecast period.

STREAMFLOW FORECASTS "(1,000 Ac. Ft.) as of May 1, 1967

NO.	FORECAST POINT	FORECAST THIS YEAR	FORECAST PERIOD		THIS YEAR AS PERCENT. OF AVERAGE 1
3305 2730 3200 3190 3295 2920 3300 2755 3250	Bear near Wallowa Burnt near Hereford d Catherine near Union Grande Ronde at La Grande Hurricane Creek near Joseph Imnaha at Imnaha Lostine near Lostine Powder River near Baker Wallowa, East Fork near Joseph d	67 20 22 62 107 110 55 390 160 53 55 10.4 13.7	May-Sept. May-June May-Sept. May-Sept. May-July May-Sept. April-Sept. April-Sept. April-Sept. May-July May-Sept. May-July May-Sept.	61 16.0 17.8 58 118 121 48 318 131 44 45 8.8 11.2	110 125 124 107 91 91 114 122 122 120 122 118 122

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

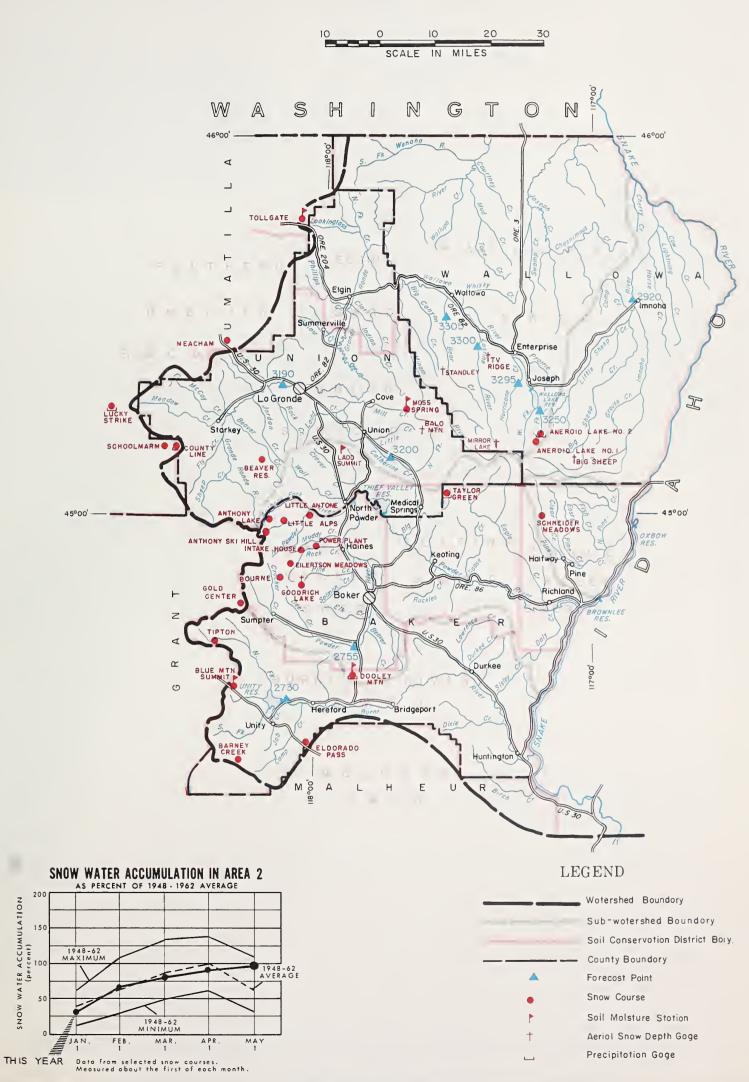
RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

STREAM or AREA	or AREA FLOW PERIOD SPRING SEASON LATE SEASON		FLOW PERIOD RESERVOIT		ERIOD		USABLE	MEASUR	ED (First o	f Mo
STREAM OF AREA			NESERVOIII		CAPACITY	THIS YEAR	LAST YEAR	194 AVE		
Alder Slope Baker Valley Big Creek Clover Cr. (nr. N. Powder) Cove Durkee Eagle Valley Elgin Enterprise-Joseph Hereford-Bridgeport Imnaha River LaGrande-Island City Lostine-Wallowa No. Powder River-Wolf Cr. Pine Valley Powder River-Elk Creek Summerville Sumpter Valley Union-Hot Lake Unity	Spring peak flows will occur this month	Average Fair Average Fair Average Fair Average Fair Excellent Average Excellent Fair Excellent Average Fair Average Average Fair Fair Fair Average Average		Thief Valley Unity Wallowa Lake	17.4 25.2 37.5	b 24.5 14.2	25.3 36.6	2:		

SOIL MOISTURE		PROFILE	(Inches)		SOIL MOISTU	RE (Inches)		
STATION		DEPTH	CAPACITY	DATE	THIS	LAST	2 YEARS	
NAME	NAME ELEVATION				YEAR	YEAR	AGO	
Blue Mountain Summit Emigrant Springs Tollgate	5100 3925 5070	36 48 48	16.8 22.3 23.6	4-27-67 4-27-67 4-27-67	13.2 20.4 18.8	12.6 19.5 19.2	16.0 21.0 19.7	

⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS



SNOW		CUR	RENT INFORMA	TION	-PAST R	ECORD
SNOW COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONT	ENT (Inches)
NAME	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE
Aneroid Lake #1 Aneroid Lake #2 Anthony Lake Anthony Ski Hill Bald Mountain (Ore.) Barney Creek Beaver Reservoir Big Sheep Blue Mountain Summit	7300 7125 6700 5950 5340 6200 5098	4/30 4/30 4/27 c 5/1 4/28 4/26 5/1 4/27	116 95 83 33 37 93 21	52.0 46.0 36.2 33.2 10.6 12.2 37.2 6.4	30.8 27.0 19.6 0.0 2.2 10.5 0.0	39.7 m 34.2 m 29.2 m 6.2 m - 1.6 m
Bourne County Line Dooley Mountain Eilertson Meadows Eldorado Pass Gold Center Goodrich Lake Intake House Little Alps Little Antone Lucky Strike	5800 4800 5430 5400 4600 5340 6775 4930 6200 5000 5050	4/26 4/30 4/24 4/25 4/28 4/26 5/2 4/25 4/27 4/27 4/27	36 8 23 37 0 33 119 30 66 0	13.4 2.2 9.1 14.0 0.0 12.7 45.2 ^g 10.7 20.2 0.0 12.5	1.4 0.0 0.0 0.0 0.0 0.0 1.0 8.6 0.0 3.1	5.6 m
Meacham Mirror Lake e Moss Springs Power Plant Schneider Meadows Schoolmarm Standley Taylor Green Tipton Tollgate TV Ridge	4300 8200 5850 3990 5400 4775 7400 5740 5100 5070 7000	4/27 b 5/1 4/25 4/27 4/30 5/1 5/1 4/27 4/27 5/1	10 82 0 75 3 106 50 20 56 81	29.0 0.0 31.7 0.7 42.4 19.0 6.3 24.7 32.4	7.6 0.0 9.9 0.0 17.5 1.6 0.0 9.9	1.9 ^m 21.7 ^m 1.7 ^m 20.6 ^h



WATER SUPPLY OUTLOOK UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS OREGON

as of May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINFER

GENERAL OUTLOOK

Farmers, ranchers and other water users can expect below average water supplies this summer. Stored water in McKay reservoir is low for this time of year and expected streamflow is not enough to assure adequate supplies. However, most of the snow-melt runoff is yet to come as April flows were much below normal.

SNOW COVER

Above average precipitation and colder than normal temperatures combined to reduce melt and increase the water content of the pack at several snow courses in the area. The snowpack is substantially above average for May I.

SOIL MOISTURE

Moisture in the soil mantle under the snowpack is 82 percent of capacity. This moisture will favor snow-melt runoff.

RESERVOIR STORAGE

McKay reservoir contained 46,600 acre feet on May 1 compared to 41,800 last year. This is 74 percent of average for this time of year.

STREAMFLOW

McKay reservoir inflow during the May-September period will be about 14,100 acre feet or 100% of average. With the 46,600 now in the reservoir, the total available supply for the year will be about 61,000 acre feet less than was forecast last month.

Flow of the Umatilla at Pendleton is forecast at 116,000 acre feet or 120% for the next five months.

Butter Creek should produce flows totaling 5,800 acre feet for the May-July period. This is 123% of average for this period but late season shortages will still occur.

Flow of the South Fork of Walla Walla is forecast at 44,000 acre feet or 100% for the next three month period.

These forecasts assume near average conditions of precipitation and temperature will prevail during the forecast period.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

STREAM or AREA	FLOW PERIOD		RESERVOIR	USABLE	MEASUF	ED (First o	f Month
SIREAM OF AREA	SPRING SEASON	LATE SEASON	RESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	1948-62 AVERAG
Walla Walla River, No. Fk. Walla Walla River, So. Fk. Walla Walla River, Main Walla Walla River, Little Couse Creek Dry Creek Pine Creek Umatilla River, Main Wildhorse Creek Umatilla R. (Cold Springs Reservoir) Umatilla R. (McKay Res.) McKay Creek Birch Creek Butter Creek Willow Creek Rhea Creek Rock Creek (John Day tributary)	Spring peak flows will occur this month	Fair Fair Fair Fair Fair Fair Average Fair Average Fair Fair Fair Fair Fair Fair Fair Fair	Cold Springs McKay	50.0 73.8	b 46.6	47.7 41.8	49. 62.

STREAMFLOW FORECASTS "(1,000 Ac. Ft.) as of May 1, 1967

NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ¹
0320	Butter Creek near Pine City	5.8	May-July	4.7	123
0225	McKay near Pilot Rock	14.1	May-Sept.	14.1	100
0200	Umatilla River near Gibbon	65	May-July	52	125
		75	May-Sept.	58	129
0210	Umatilla River at Pendleton	111	May-July	92	120
		116	May-Sept.	97	120
0100	Walla Walla, So. Fork near Milton	44	May-July	44	100
		58	May - Sept.	58	100

SOIL MOISTURE		PROFILE	(Inches)	SOIL MOISTURE (Inches)							
STATION		STATION		DEPTH CAPACITY DATE		DEPTH		CARACITY DATE		LAST	2 YEARS
NAME	ELEVATION	DEFIN	OAI AOITT		YEAR	YEAR	AGO				
Athena-Weston Battle Mountain Summit Emigrant Springs Tollgate	1700 4340 3925 5070	48 48 48 48	18.7 13.8 22.3 23.6	4-27-67 4-27-67 4-27-67 4-27-67	11.4 13.8 20.4 18.8	14.3 12.5 19.5 19.2	14.2 13.8 21.0 19.7				

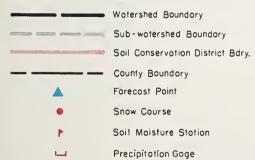
SNOW		CUF	RENT INFORMA	TION	PAST R	ECORD	
SNOW COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONTENT (Inches		
NAME	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE	
Arbuckle Mountain Battle Mountain Summit Blue Mountain Camp Emigrant Springs Lucky Strike Meacham Tollgate Walla Walla Diversion Weston Mountain	5400 4340 4300 3925 5050 4300 5070 2400 2700	4/27 4/27 4/27 4/27 4/25 4/27 4/27 c 4/27	21 T 9 0 37 10 56	6.2 T 3.6 0.0 12.5 4.0 24.7	0.0 0.0 0.0 0.0 3.1 0.0 9.9	2.7h 1.2m 1.9m 20.6h	

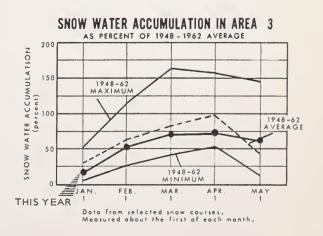
⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS









Umatilla, Walla Walla, Willow, Rock, Lower John Day Watersheds



WATER SUPPLY OUTLOOK UPPER JOHN DAY WATERSHEDS OREGON

as of

May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Ranchers and other John Day Basin water users can expect average water supplies this summer with most areas experiencing late season shortages. Cold temperatures during April delayed the snow-melt runoff and consequently close to average flows will occur rather than below average during the period May through July.

SNOW COVER

The water content of the snowpack is substantially above average for May 1 due to lack of melt from colder than normal temperatures and above average precipitation during April.

SOIL MOISTURE

Soil moisture under the snowpack is about 87 percent of capacity and will greatly favor the snow-melt runoff.

STREAMFLOW

Flow of the John Day at Prairie City is forecast at 41,000 acre feet or 86% of average for April - September.

Flow of the Middle Fork at Ritter will be about 120,000 acre feet or 99% of average for the same period.

Average conditions of temperature and precipitation are assumed for the runoff period.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

	FLOW PERIOD		RESERVOIR	BESERVOIR L		MEASUR	ED (First o	f Month
STREAM or AREA	SPRING SEASON	LATE SEASON	RESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	1948-6 AVERA	
Beech Creek Beech Creek-Fox-Long Cr. Bridge-Mountain Creeks Camas Creek Cherry Creek Indian-Pine Creeks John Day River, Main Fork John Day River, Mid. Fork John Day River, N. Fork John Day River, S. Fork Monument-Kimberly Strawberry Creek	Spring peak flows will occur this month	Fair Fair Fair Fair Average Fair Fair Fair Fair Fair Fair Fair						

STREAMFLOW FORECASTS a(1,000 Ac. Ft.) as of May 1, 1967

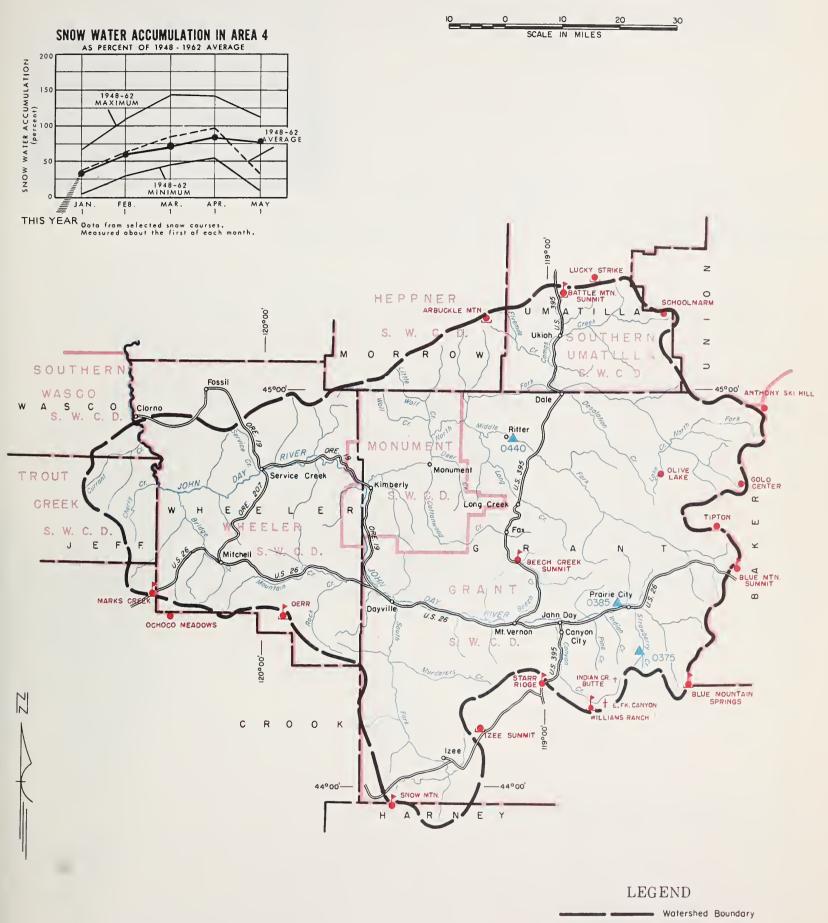
NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ¹
0385 0440 0375	John Day at Prairie City John Day, Middle Fork at Ritter Strawberry near Prairie City	41 44 115 120 8.0	April-July April-Sept. April-July April-Sept. April-July	46 51 127 131 8.1	89 86 91 92 99
0370	Dilawberry hear rearrie offy	8.7	April-Sept.	8.8	99

SOIL MOISTURE		PROFILE	(Inches)	SOIL MOISTURE (Inches)				
STATION		DEDTH	DEPTH CAPACITY	DATE	THIS	LAST	2 YEARS	
NAME	ELEVATION	DEPTH	OA! ACIT	DATE	YEAR	YEAR	AGO	
Battle Mountain Summit	4340	48	13.8	4-27-67	13.8	12.5	13.8	
Blue Mountain Springs	5900	42	16.9	4-28-67	12.1	12.8	13.5	
Blue Mountain Summit	5100	36	16.8	4-27-67	13.2	12.6	16.0	
Derr	5670	24	9.0	3-29-67	8.1 ^f	8.5 ^{<i>f</i>}		
Marks Creek	4540	36	14.1	4-26-67	13.5	13.2	13.6	
Snow Mountain	6300	48	16.7	3-30-67	15.5 ^f	12.3 ^f	15.9 ^f	
Starr Ridge	5150	36	10.6	4-27-67	10.5	10.4	10.3	
		1						

SNOW		CUR	RENT INFORMA	PAST RECORD		
SNOW COURSE		DATE OF SNOW DEPTH (Inches)	WATER CONTENT	WATER CONTENT (Inches		
NAME	ELEVATION		(Inches)	(Inches)	LAST YEAR	1948-62 AVERAGE
Anthony Lake Arbuckle Mountain Battle Mtn. Summit Beech Creek Summit Blue Mountain Springs Blue Mountain Summit Derr	7125 5400 4340 4800 5900 5098 5670	4/27 4/27 4/27 b 4/28 4/27 c	95 21 T 51 21	36.2 6.2 T 17.5 6.4	19.6 0.0 0.0 0.0	29.2 m 2.7 h 7.8 m 1.6 m
East Fork Canyon ^e Gold Center Indian Creek Butte ^e Izee Summit Lucky Strike Marks Creek	5700 5340 6550 5293 5050 4540	5/1 4/26 5/1 4/27 4/25 4/26	34 33 80 23 37 1	11.6 12.7 27.2 7.1 12.5 0.4	0.0 0.0 3.1 0.0	2.5 m 1.6 m T m
Ochoco Meadows Olive Lake Schoolmarm Snow Mountain Starr Ridge Tipton Williams Ranch	5200 6000 4775 6300 5150 5100 4500	c 4/26 4/30 c 4/27 4/27 5/1	62 3 9 20 0	21.9 0.7 2.5 6.3 0.0	11.8 0.0 0.0 0.0 	16.9 h 0.4 h 1.7 m

⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER JOHN DAY WATERSHEDS



Watershed Boundary Sub-watershed Boundary Soil Conservation District Bdry. County Boundary Forecast Point Snow Course Soil Moisture Station Aerial Snow Depth Gage Precipitation Gage

Upper John Day Watersheds



WATER SUPPLY OUTLOOK UPPER DESCHUTES, CROOKED WATERSHEDS OREGON

as of

May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Ranchers, farmers and other water users in this area can expect slightly below average water supplies this spring and summer. Stored water supplies are near average and watershed soils are well wetted.

SNOW COVER

The snowpack increased substantially during April due partly to above average precipitation and partly to lack of melt because of colder than usual temperatures.

SOIL MOISTURE

Moisture in the soil mantle under the snowpack is excellent and is about 93% of capacity. This will enhance the snow-melt runoff.

RESERVOIR STORAGE

Prineville and Ochoco Reservoirs now hold 146,900 acre feet and 33,200 acre feet respectively. This is close to what was stored at this time last year.

Crane Prairie now contains 35,900 acre feet, down 2,900 acre feet from last month while Crescent Lake is storing 55,500 or about the same as last month. Wickiup now holds 186,900 acre feet compared to 190,200 acre feet at this time last year.

STREAMFLOW

Forecasts of expected streamflow for May-September 1967 are:

Stream	Volume	Percent of 1948-1962 Average
Crooked nr. Post	65,000	135
Ochoco Resv. Inflow	21,000	127
Deschutes at Benham Falls	430,000	79

April - September forecasts are:

Stream	Volume	Percent of 1948-1962 Average
Little Deschutes Tumalo Creek	95,000 50,000	8 4 9 2
Squaw Creek	53,000	95

These forecasts assume near average conditions of precipitation and temperature during the forecast period.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

WATER SUPPLY OUTLOOK "Average" or "Excellent"					
STREAM or AREA	FLOW SPRING SEASON	PERIOD LATE SEASON			
Arnold Irrigation District Bear Creek Beaver Creek Camp Creek Central Ore. Irrig. Dist. Crooked River Deschutes River Hay-Trout Creeks Lone Pine Irrig. Dist. Mill Creek North Unit Irrig. Dist. Ochoco Creek Sisters Irrigation Dist. Snow Creek Irrig. Dist Squaw Creek Irrig. Dist. Swalley Ditch Tumalo Project Walker Basin Irrig. Dist.	Spring peak flows will occur this month	Average Average Average Average Fair Average Fair Average Fair Fair Average Fair Average Average Average Average Average			

RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

	• •		May 1,	1307
RESERVOIR	USABLE	MEASUR	ED (First o	f Month)
	CAPACITY	THIS YEAR	LAST YEAR	1948-62 AVERAGE
Crane Prairie Crescent Lake Ochoco Prineville Wickiup	55.3 86.9 47.5 153.0 200.0	35.9 55.5 33.2 146.9 186.9	42.9 65.3 36.8 146.9 190.2	46.6 45.9 39.1 185.5

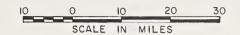
STREAMFLOW FORECASTS "(1,000 Ac. Ft.) as of May 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
NO.	NAME				OF AVERAGE
0535	Crane Prairie Reservoir total Inflow	79	May-July	79	100
0000	orano ilaziro monte del controlo del control	124	May-Sept.	127	98
0600	Crescent at Crescent Lake	21	May-July	22	95
0000	orobosite de orobosite anna	26	May-Sept.	29	90
0795	Crooked near Post	63	May-July	46	137
0,00		65	May-Sept.	48	135
0645	Deschutes at Benham Falls d	262	May-July	328	80
0010		430	May-Sept.	541	79
0500	Deschutes below Snow Creek	59	May-Sept.	68	86
0630	Deschutes, Little near Lapine d	83	April-July	99	83
		95	April-Sept.	113	84
0848	Ochoco Reservoir net Inflow	21	May-Sept.	16.5	12,7
0555	Odell near Crescent	30	April-Sept.	34	88
0750	Squaw near Sisters	53	April-Sept.	56	95
0730	Tumalo near Bend d	50	April-Sept.	54	92

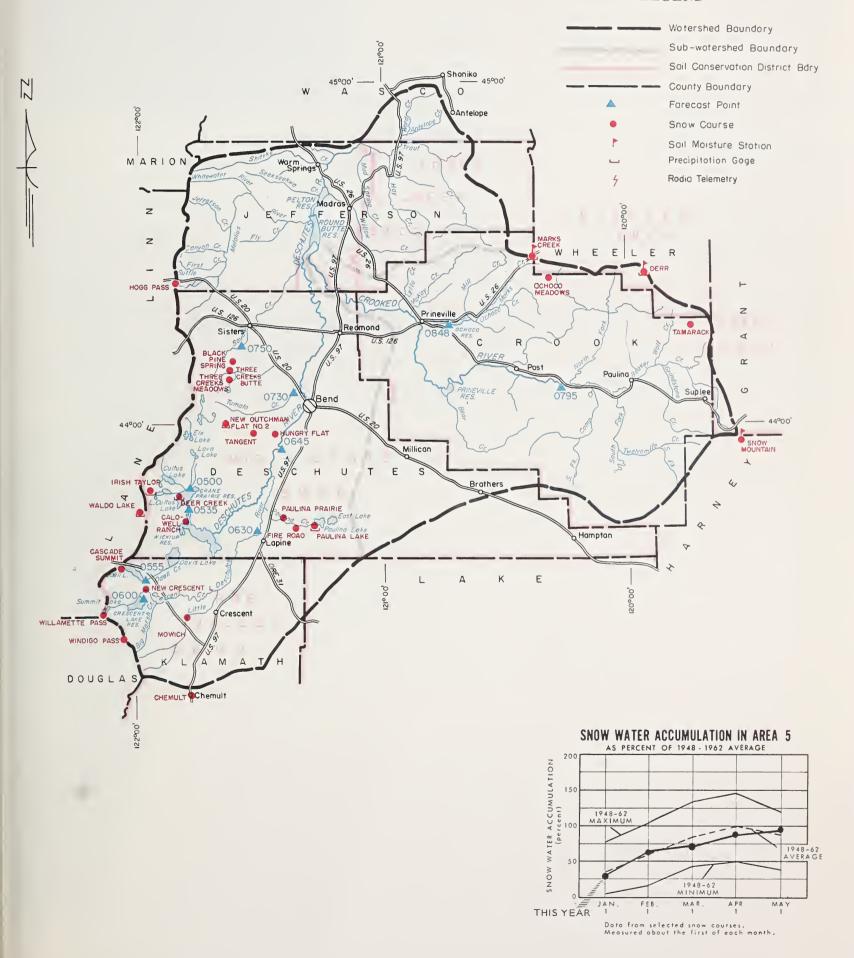
SOIL MOISTURE	PROFILE	(Inches)	SOIL MOISTURE (Inches)				
STATION NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Derr Marks Creek Snow Mountain	5670 4540 6300	24 36 48	9.0 14.1 16.7	3-29-67 4-26-67 3-30-67	8.1 ^f 13.5 15.5 ^f	8.5 f 13.2 12.3 f	13.6 15.9 f

⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER DESCHUTES, CROOKED WATERSHEDS



LEGEND



Upper Deschutes, Crooked Watersheds

SNOW			CURRENT INFORMATION PA				
SNOW COURSE		DATE OF	SNOW DEPTH	WATER CONTENT	WATER CONTENT (Inches		
NAME	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	1948-62 AVERAGE	
Black Pine Spring	4600	4/26	0	0.0	0.0	0.4 h	
Caldwell Ranch	4400	c					
Cascade Summit	4880	4/28	85	31.6	23.8	28.6	
Chemult	4760	4/28	20	6.6	0.0	0.6 "	
Deer Creek	4554	c					
Derr	5670	c .				,	
Fire Road	5050	4/26	20	7.4	0.0	0.7 h	
Hogg Pass	4755	5/1	106	44.1	43.5	46.9 h	
Hungry Flat	4400	4/30	0	0.0	0.0	0.0 m	
Irish Taylor	5500	c					
Marks Creek	4540	4/26	1	0.4	0.0	Τ π	
Mowich	4700	4/27	0	0.0	0.0	0.0 /	
New Crescent Lake	4800	4/27	35	13.1	0.0	5.6 h	
New Dutchman Flat #2	6400	4/30	128	58.2	48.0	57.7	
Ochoco Meadows	5200	·c					
Paulina Lake	6330	4/26	67	23.6	10.5	18.1 h	
Paulina Prairie	4285	4/26	0	0.0	0.0	0.0 }	
Snow Mountain	6300	c					
Tamarack	4800	с					
Tangent	5400	4/30	56	23.0	11.8	12.5	
Three Creeks Butte	5200	4/26	17	6.3	0.0	3.1	
Three Creeks Meadows	5650	4/26	54	20.1	10.6	15.3 /	
Waldo Lake	5500	4/25	92	36.7			
Willamette Pass	5600	4/27	130	50.2	39.4	45.4 h	
Windigo Pass	5800	4/27	118	45.8	33.3	48.8	
		l '	I	-			
	RADIO REPORT BY	AUTOMATIC-		RING STATI	ON		
			<u>Time</u>				
Irish Taylor	5400	5/1	8:11 A.M.	47.5			



WATER SUPPLY OUTLOOK HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

as of

May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in the Hood River-Wasco area can expect less than the usual water supply this spring and summer with major streams producing less than their average amount of water.

SNOW COVER

The snow cover for the area is currently 95% of average for May 1, however, this is due mainly to lack of melt from colder than usual temperatures during April, and partly to average precipitation during April.

SOIL MOISTURE

Watershed soil moisture under the snowpack is excellent and will enhance the snow-melt runoff.

RESERVOIR STORAGE

Wasco reservoir is holding 2,900 acre feet of water which is the same as last years contents for May 1.

STREAMFLOW

The White River below Tygh Valley will discharge 82,000 acre feet during the May-July period or 76% of the 1948-62 average.

The West Fork of the Hood River will release 89,000 acre feet past the gaging station near Dee which is 88% of the May-July average. The May-July flow of the Hood River nr. Hood River will be 88% of average.

Smaller streams, heading in medium and low elevations will have relatively short flows this year and will provide only fair water supplies this summer.

These forecasts assume near average conditions of temperature and precipitation during the forecast period.

	FLOW	PERIOD	RESERVOIR	USABLE	MEASUR			
STREAM or AREA	SPRING SEASON	LATE SEASON	RESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	1948- AVERA	
Aldridge Ditch (Tony Creek) Badger Creek Dee Irrigation District East Fork Irrig. Dist. Farmers Irrigation Dist. Hood River Irrig. Dist. Juniper Flat Middle Fork Irrig. Dist. Mile Creeks Mill Creek Mount Hood Irrig. Dist. Rock-Gate-Threemile Crs. Tygh Creek White River	Spring peak flows will occur this month	Fair Fair Fair Fair Fair Fair Fair Fair	Clear Lake	11.9	2.9	2.9		

RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

STREAMFLOW FORECASTS a (1,000 Ac. Ft.) as of May 1, 1967

	FORECAST POINT	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCEN OF AVERAGE
NO.	NAME				OT AVENAG
1910	Hood near Hood River	192	May-July	218	88
1210	Hood Real Hood Rivel	250	May-Sept.	278	90
1185	Hood, West Fork near Dee	89	May-July	101	88
1100	libod, west fork hear see	108	May-Sept.	125	86
1015	White below Tygh Valley	82	May-July	108	76
	3 3	98	May-Sept.	126	78

NOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE		DATE OF	SNOW DEPTH	WATER CONTENT	WATER CONTENT (Inches	
NAME	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	1948-62 AVERAGE
Brooks Meadows	4300	С				
Clear Lake	3500	4/27	13	5.2	5.6	7.2^{h}
Clear Lake (Experimental)	3500	4/27	32	12.8	10.5	
Cooper Spur	3490	c	•			
Greenpoint Reservoir	3400	С				
Knebal Springs	3850	с				
Lambert Point	7000	С				
Parkdale	1770	c				
Phlox Point	5400	4/27	151	69.1	63.1	71.1
Red Hill	4400	c .·				
Still Creek	3670	4/27	49	20.5	22.8	20.7
Switchback	3255	с				
Tilly Jane	6000	с				
Ulrich Ranch Junction	3350	· c				
Umbrella Falls	5400	5/2	154	67.9		
Upper Valley	2530	с				

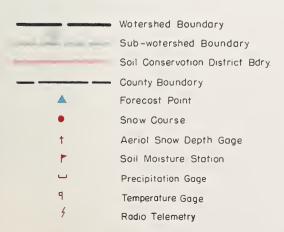
⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

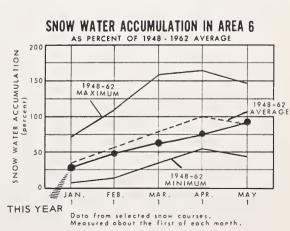
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS





LEGEND





Hood, Mile Creeks, Lower Deschutes Watersheds



WATER SUPPLY OUTLOOK LOWER COLUMBIA WATERSHEDS OREGON

as of
May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Water supply outlook for consumptive use is satisfactory over all of the Columbia Basin. Of more concern are the expected high flows along the main Columbia and its upper tributaries. The volume flow of the Columbia at The Dalles is expected to exceed all recent years except 1948 and 1956. If the weather continues cold and additional snowfall comes before a general melt, volume flow at The Dalles could equal that of the above-mentioned two years.

Relatively high peak flows must be expected in the Columbia main stem. The U. S. Weather Bureau River Forecast Center for the Columbia Basin are forecasting probable stages of from 23 to 26 feet at Vancouver and 22 to 25 feet at Portland with such regulation as is available. Major reservoirs in the basin are being lowered or kept at low levels in anticipation of heavy flows during the snowmelt season.

Forecasts for the Snake River and lower Columbia tributaries in Idaho and Oregon are generally above average – an increase over April 1.

SNOW COVER

With cold temperatures and additional snowfall during April, snow cover in Canada and northwestern Montana remains near or at a maximum of record for May 1. On the Snake River in Idaho and over most of Oregon, snowpack is well above average – principally because of delayed snowmelt.

SOIL MOISTURE

Soil moisture is near to below average at valley and lower mountain elevations. Because of delayed snowmelt, soils under the snow at mountain elevations are much drier than usual for this date.

STREAMFLOW

The flow of the Columbia River and its tributaries has been below average for over a year except for January 1967. April flow was extremely deficient. The record by months for the 1967 water year for the Columbia at The Dalles is as follows:

Month	Percent of Average Discharge (1948-62
October	79 (Adjusted for storage)
November	80 (Adjusted for storage)
December	96 (Adjusted for storage)
January	109 (Adjusted for storage)
February	88 (Adjusted for storage)
March	80 (Adjusted for storage)
April	55 (Adjusted for storage)

*Preliminary data furnished by Currents Records Center, U. S. Geological Survey, Portland, Oregon.

W.T. FROST AND TOM GEORGE

STREAMFLOW FORECASTS a (1,000 Ac. Ft.) as of May 1, 1967

NO.	FORECAST POINT NO. NAME		FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ¹	
1057	Columbia at The Dalles	72,500 114,000	May-June May-Sept.	60,426 94,841	120 120	

HISTORICAL DATA (Columbia River at The Dalles)

	9	STREAMFLOW (1,000 A.F.)	PEAK	
YEAR	APR.— SEPT.	APR. — JUNE	MAY — JUNE	(1,000 c.f.s)	DATE
1943	115,000	75,300	52,400	541	June 21
1944	61,900	39,200	32,100	326	June 19
1945	81,600	54,600	47,300	505	June 8
1946	108,100	75,400	59,600	581 .	May 30
1947	100,300	70,000	56,800	536	May 11
1948	130,500	94,600	81,900	999	May 31
1949	95,700	71,400	56,000	622	May 18
1950	120,400	74,700	61,200	744	June 25
1951	113,000	75,600	59,100	597	May 26
1952	107,700	77,500	57,300	557	May 28
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,400	96,900	75,800	815	June 3
1957	105.700	80,500	67,200	700	May 22
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1948-62 Avg.	108,500	74,100	60,200	633	
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18

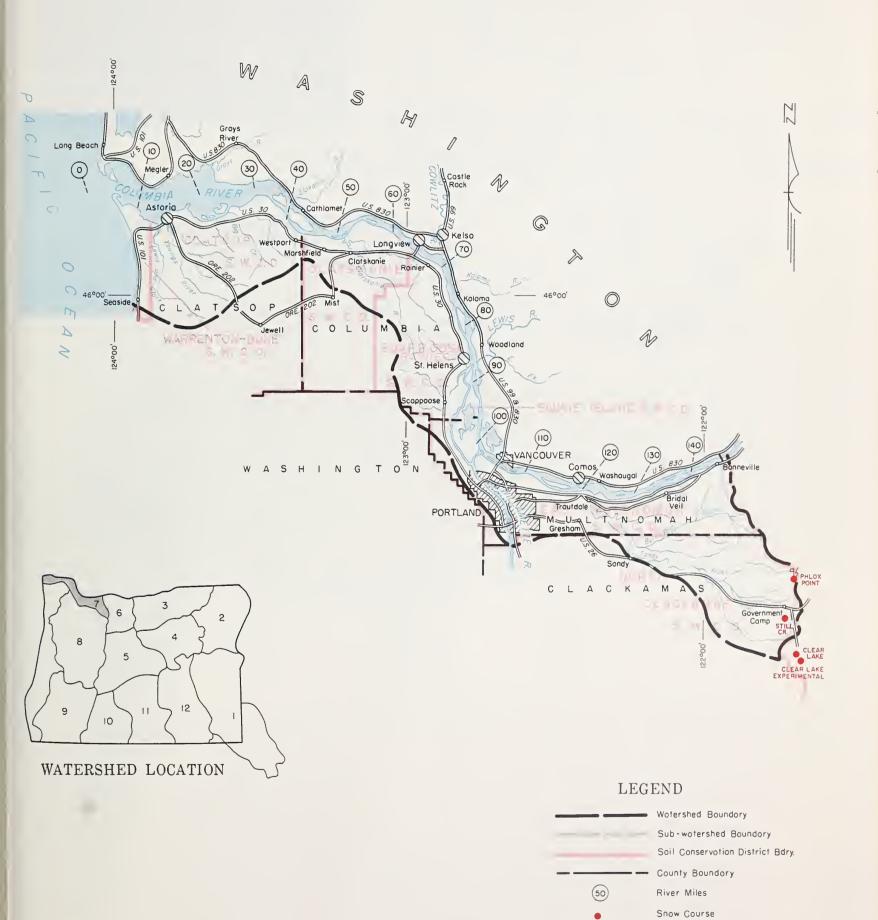
LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

				DRAINA	GE DISTRICT PUM	PHOUSE		
VANCOUVER	FLOW AT	SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
GAGE	THE DALLES				RIVER MILES			
(Weather Bu.)	(1,000 c.f.s)	118.9	96.0	91.0	77. 0	62.0	52.0	47. 0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	26.0	90 5	90 E	04.0	10.1	3.4.0	10.4
29	897	36.6 35.5	29.5 28.5	28.5 27.7	24.3	18.1	14.0	12.4 11.8
28	853	34.3	27.5	26.7	23.7	17.5 17.0	13.4 13.0	11.6
27 (1956)	811	33.0	26.5	25.6	22.8 21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

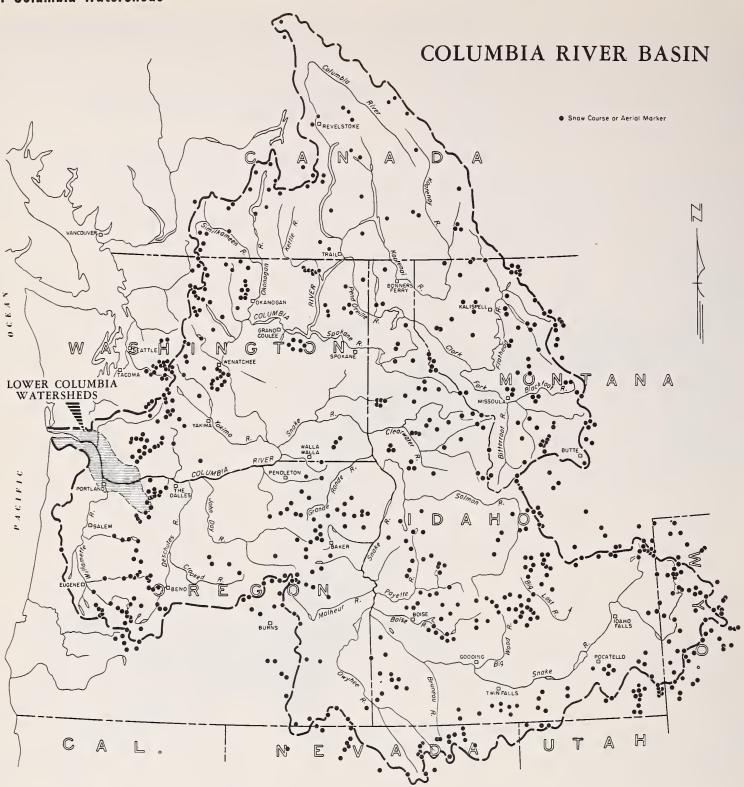
⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

LOWER COLUMBIA WATERSHEDS





Temperoture Rodio Telemetry





WATER SUPPLY OUTLOOK WILLAMETTE WATERSHEDS OREGON

as of

May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Most irrigators and water users in the Willamette Valley can expect close to average water supplies this summer. Streams heading in the lower elevations will provide only fair late season supplies.

SNOW COVER

The snowpack is close to normal for May 1 due to the cold temperatures which prevented melt during April and the average precipitation over the mountains last month.

SOIL MOISTURE

Soils under the snowpack are well wetted, taking into consideration the lack of melt last month, and should favor the snow-melt runoff.

RESERVOIR STORAGE

Contents of the multiple-purpose reservoirs in the Willamette Valley watersheds are close to average for May 1.

STREAMFLOW

April-July expected flows of Willamette Valley streams are as follows:

Stream	Volume	Percent of 1948-62 Average
Clackamas R. at Estacada	695,000	90%
North Santiam at Mehama	775,000	88%
South Santiam at Waterloo	545,000	86%
McKenzie R. near Vida	1,030,000	90%
Middle Fk. Willamette	735,000	86%
Row River near Dorena	122,000	113%
Willamette at Salem	4,450,000	88%

These forecasts assume near average conditions of temperature and precipitation during the forecast period.

WATER SUPPLY OUTLOOK "A	verage" or "Ex	cellent"
STREAM or AREA	FLOW	PERIOD
OTTEAM OF AILEA	SPRING SEASON	LATE SEASON
Calapooya Clackamas McKenzie Molalla Santiam, North Santiam, South Willamette, Coast Fork Willamette, Middle Fork	Spring peak flows will occur this month.	Fair Average Average Fair Average Average Average Average

RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

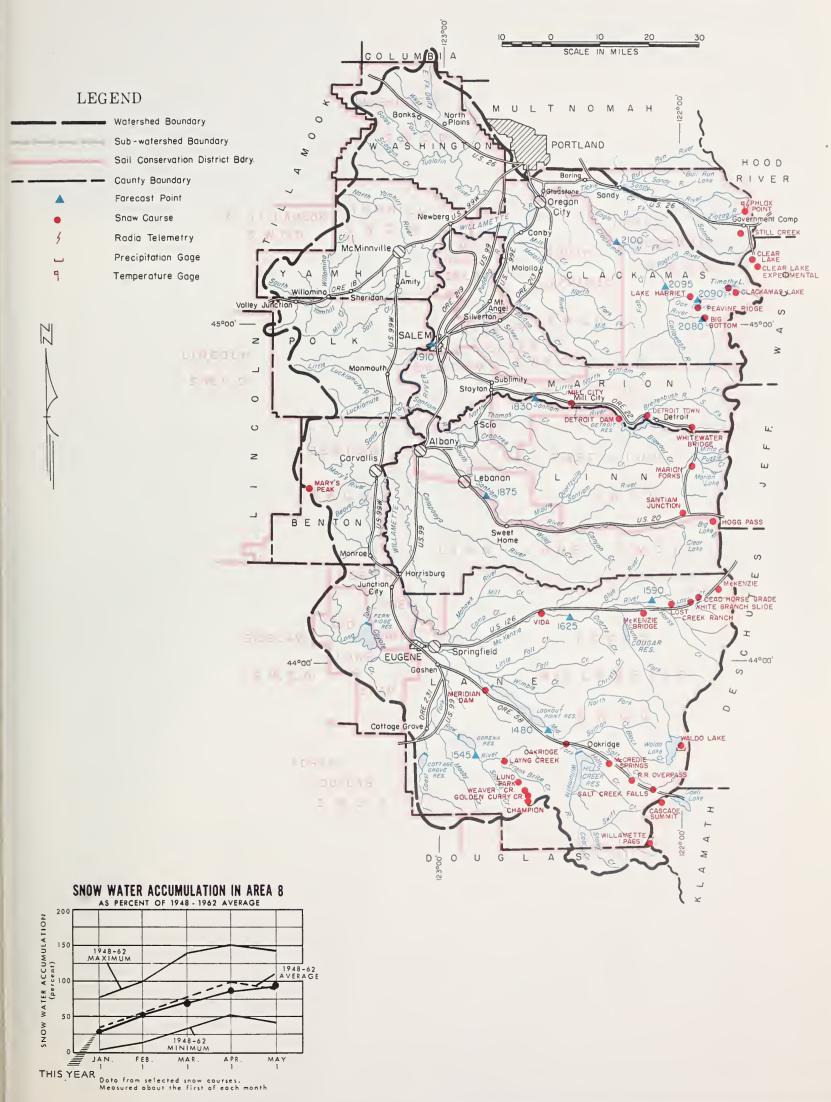
MEDERYON DIORAGE	(1,7000		May 1,	1507
RESERVOIR	USABLE	MEASUR	ED (First o	f Month)
RESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottage Grove Cougar Detroit Dorena Fall Creek Fern Ridge Hills Creek Lookout Point Timothy Lake	30.0* 155.2* 299.9* 70.5* 115.0* 94.2* 200.0* 337.2* 61.7	181.0 54.9 99.0 94.9 116.5	21.2 120.5 237.4 49.2 93.6 87.2 170.8 227.7 59.3	25.4
*Multiple purpose reservoirspace reserved primarily for flood control.				

STREAMFLOW FORECASTS a(1,000 Ac. Ft.) as of May 1, 1967

NO.	FORECAST POINT	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCEN OF AVERAGE
140.	Trans.	<u> </u>			I OF AVERAGE
2080	Clackamas at Big Bottom	142	April-July	150	. 95
		174	April-Sept.	184	94
2100	Clackamas at Estacada	695	April-July	770	90
		800	April—Sept.	890	90
2095	Clackamas above Three Lynx	550	April-July	584	94
		655	April-Sept.	683	96
1590	McKenzie at McKenzie Bridge	446	April-July	502	89
		582	April-Sept.	658	88
625	McKenzie near Vida	1030	April-July	1144	90
		1255	April-Sept.	1392	90
2090	Oak Grove Fork above Power Intake	142	April-July	147	97
		185	April-Sept.	190	97
.545	Row near Dorena	122	April-July	108	113
	4	126	April-Sept.	112	112
.830	Santiam, North at Mehama d	775	April-July	884	88
		870	April-Sept.	991	88
.875	Santiam, South at Waterloo	545	April-July	637	86
	d	580	April—Sept.	675	86
.480	Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge ^d	735	April-July	863	85
		830	April-Sept.	968	86
910	Willamette at Salem ^d	4450	April-July	5040	88
		4450	April—Sept.	5566	89

⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WILLAMETTE WATERSHEDS



SNOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONTENT (Inche	
NAME	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE
Big Bottom	2118	4/27	0	0.0	0.0	1.3 h
Cascade Summit	4880	4/28	85	31.6	23.8	28.6
Champion	4500	4/28	95	39.1	28.7	
Clackamas Lake	3400	c				
Clear Lake	3500	4/27	13	5.2	5.6	7.2 h
Clear Lake (Experimental)	3500	4/27	32	12.8	10.5	
Dead Horse Grade	3800	4/28	58	24.3	10.1	13.4 h
Detroit Town	1610	5/1	0	0.0	0.0	0.0 h
Detroit Dam	1580	5/1	0	0.0	0.0	0.0 h
Golden Curry Creek	3136	4/28	8	2.1	0.0	- -
Hogg Pass	4755	5/1	106	44.1	43.5	46.9 h
Lake Harriet	2045	c				
Layng Creek	1200	4/28	0	0.0	0.0	
Lost Creek Ranch	1956	4/28	0	0.0	0.0	0.0 h
Lund Park	1740	4/28	0	0.0	0.0	
Marion Forks	2730	5/1	14	6.2	8.1	3.9 h
Marys Peak	3620	c			0.2	,
McCredie Springs	2120	4/28	0	0.0	0.0	0.0 %
McKenzie	4800	4/28	114	47.3	43.5	51.6 h
McKenzie Bridge	1372	4/28	0	0.0	0.0	0.0 m
Meridian Dam	750	4/28	Ö	0.0	0.0	0.0 h
Mill City	826	5/1	0	0.0	0.0	0.0 "
Oakridge	1310	4/28	0	0.0	0.0	0.0 h
Peavine Ridge	3500	4720 В	O	0.0	0.0	0.01
Phlox Point	5400	4/27	151	69.1	63.1	71 1
	2750	4/27	0	0.0	0.0	71.1 0.1 h
Railroad Overpass	4000	4/28	58	21.2	15.1	11.4 h
Salt Creek Falls	3990	5/1	50	20.7	10.6	15.0 h
Santiam Junction	3670	4/27	49	20.7	22.8	20.7
Still Creek	3295	· ·	49	20.5	44.0	20.7
Timothy Lake	800	<i>c</i>	0	0 0	0 0	o h
Vida		4/28	_	0.0	0.0	0.0"
Waldo Lake	5500	4/25	92	36.7		
Weaver Creek	2440	4/28	0	0.0	0.0	- h
White Branch Slide	2800	4/28	U	0.0	0.0	$2 \cdot 1 \stackrel{n}{T} h$
Whitewater Bridge	2175	5/1	3.00	0.0	0.0	
Willamette Pass	5600	4/27	130	50.2	39.4	45.4 h
RAD	IO REPORT E	BY AUTOMATI	C-SNOW-MEAS	SURING STAT	CION	
	1		Time			
D 1 D11	9500	5/3			11.0	
Peavine Ridge	3500	5/1	b	70.3	11.8	
Phlox Point	5400	5/1	10:17 A.M.	73.1	61.8	



WATER SUPPLY OUTLOOK ROGUE, UMPQUA, WATERSHEDS OREGON

as of
May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators and other water users in the Umpqua and Rogue basins can expect close to average water supplies this summer. Exceptions will be for those users dependent on diversions from streams heading at low elevations where only fair late season supplies will be available.

SNOW COVER

Due to lack of melt during April and above average precipitation for the month the basin snow cover has increased to 102% of average for May 1.

SOIL MOISTURE

Taking into consideration the lack of melt for April the soil under the snowpack is well wetted and will favor runoff.

RESERVOIR STORAGE

The combined storage of Hyatt Prairie, Howard Prairie and Emigrant Gap reservoirs so 96,100 acre feet which is a little less than last years May 1 contents of 103,500 acre feet.

STREAMFLOW

Expected summer flows for the area are as follows:

Stream	Volume (acre feet)	Percent of 1948-62 Average
North Umpqua blw. Lemolo		
Reservoir	180,000 April-Sept.	97
Rogue above Prospect	205,000 May-July	97
Rogue blw. South Fork	443,000 May-July	100
Rogue at Raygold	572,000 May-July	101
Applegate nr. Copper	147,000 April-Sept.	104
Illinois nr. Kerby	216,000 April-July	105

These forecasts assume near average conditions of temperature and precipitation during the forecast period.

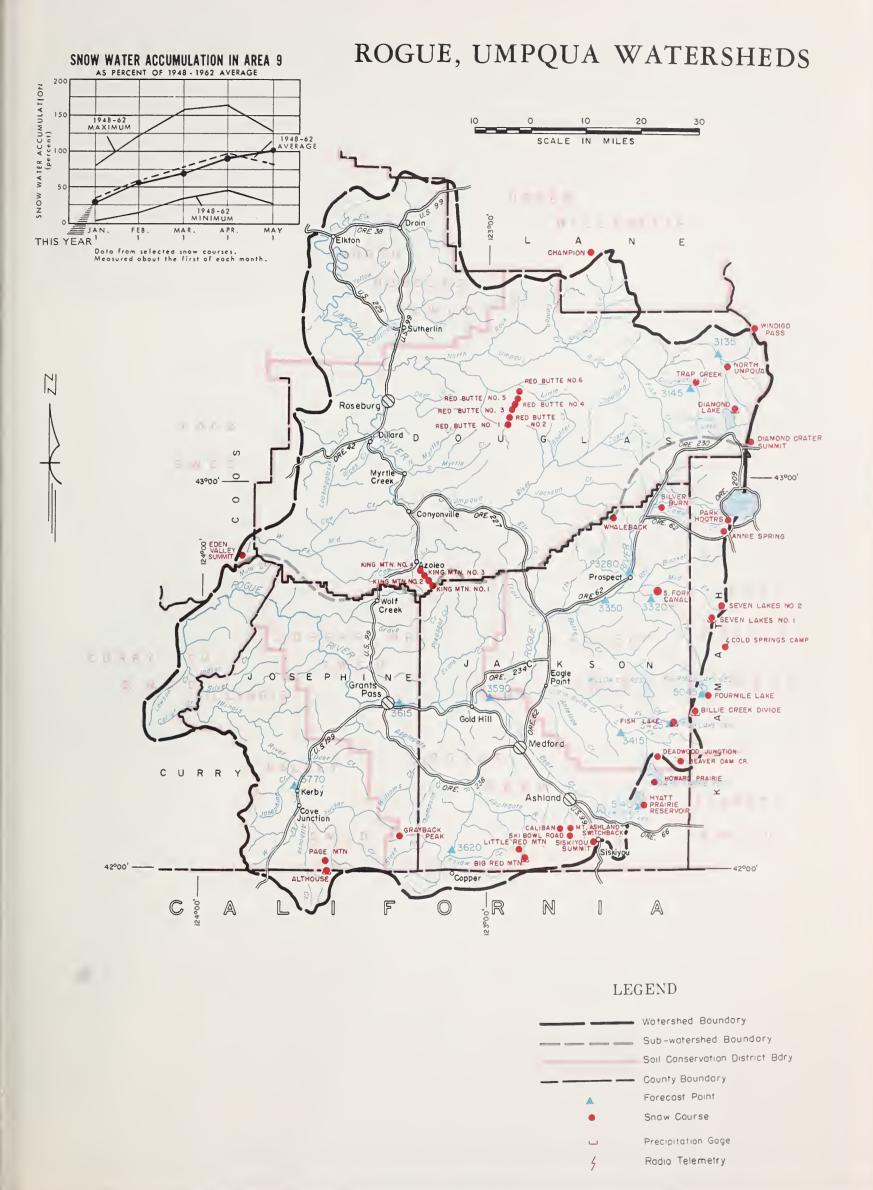
RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

STREAM or AREA	FLOW	FLOW PERIOD RESERVOIR		USABLE	MEASUR	ED (First o	f Month
STITLAM OF AIREA	SPRING SEASON	LATE SEASON	RESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	1948-6 AVERA
Althouse Creek Applegate River, Big Applegate River, Little Ashland Creek Butte Creek, Big Butte Creek, Little Cow Creek Deer Creek Elk Creek Emigrant Creek (abv. Res.) Evans Creek Gold Hill Irrigation Dist. Grants Pass Irrig. Dist. Grave Creek Illinois River, East Fork Illinois River, West Fork Jump-off-Joe Creek Neil Creek Red Blanket Creek Rogue River Sucker Creek Table Rock Irrig. Dist. Thompson Creek Wagner Creek Williams Creek	Spring peak flows will occur this month	Fair Average Average Average Average Average Fair Fair Fair Average Fair Fair Fair Average Fair Average Fair Fair Average Fair	Emigrant Gap Fish Lake Fourmile Lake Howard Prairie Hyatt Prairie *Average for years of record after reconstruction.	39.0 7.8 16.1 60.0 16.1	38.8 b 43.4 13.9	36.4 7.3 11.9 52.1 15.0	36. 6. 10. 12.

STREAMFLOW FORECASTS "(1,000 Ac. Ft.) as of May 1, 1967

FORECAST POINT NO. NAME		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE 1
3620	Applegate near Copper	147	April-Sept.	142	104
3145	Clearwater above Trap Creek ^d	60	May-Sept.	62	97
5045	Fourmile Lake net Inflow d	6.4	April-Sept.	6.6	97
5140	Hyatt Reservoir net Inflow d	3.3	May-Sept.	3.4	97
3770	Illinois River at Kerby	216	April-July	206	105
		221	April-Sept.	212	104
3425	Little Butte, N. Fk. at Fish Lake nr. Lake Cr. d	*	April-Sept.	16.0	
3415	Little Butte, So. Fk. nr. Lake Creek	*	April-July	38	
	Note: Minimum flow will drop to 100 c.f.s.				
	by <u>*</u>				
3280	Rogue above Prospect	205	May-July	212	97
		263	May-Sept.	272	97
3320	Rogue, South Fork near Prospect d	50	May-July	52	97
		62	May-Sept.	64	97
3350	Rogue River below South Fork	443	May-July	443	100
		585	May-Sept.	586	100
3590	Rogue at Raygold near Central Point	572	May-July	567	101
		737	May-Sept.	730	101
3615	Rogue at Grants Pass	680	May-Sept.	700	97
3135	Umpqua, No. blw. Lemolo Res. nr. Toketee Falls d	180	April-Sept.	186	97
	*Snow Survey information at Fish Lake not available.				
	avallable.				

⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.



SNOW		CURRENT INFORMATION			PAST RECORD		
SNOW COURSE		DATE OF	SNOW DEPTH	WATER CONTENT	WATER CONTENT (Inche		
NAME	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	1948-62 AVERAGE	
Althouse	4530	С					
Annie Spring	6018	4/30	134	56.0	44.2	45.4	
Beaver Dam Creek	5100	4/28	49	17.7			
Big Red Mountain	6500	c					
Billie Creek Divide	5300	4/29	63	24.4	2.6	16.8 <i>h</i>	
Caliban	6500	b				20.0	
Champion	4500	4/28	95	39.1	28.7		
Cold Springs Camp	6100	4/26	99	39.7	25.4		
Deadwood Junction	4600	4/28	26	9.0			
Diamond-Crater Summit	5800	4/24	104	39.2	31.0		
Diamond Lake	5315	4/24	63	23.3	16.6	18.0	
Eden Valley Summit	2390	b		20.0	10.0	1010	
Fish Lake	4865	b					
Fourmile Lake	6000	b					
Grayback Peak	6000	c					
Howard Prairie	4500	4/28	25	8.8			
Hyatt Prairie Reservoir	4900	4/28	25	8.3			
King Mountain #1	4500	b		0.0			
King Mountain #2	4000	b					
King Mountain #3	3648	$\stackrel{\circ}{b}$					
King Mountain #4	3049	b					
King Mountain #5	2380	b					
King Mountain #6	1820	b					
Little Red Mountain	6500	c					
Mt. Ashland Switchback	6400	$\stackrel{\circ}{b}$					
Worth Umpqua	4215	4/28	36	13.6	2.8	5.3 ^m	
Page Mountain	4045	c c		10.0	2.0	0.0	
Park Headquarters	6450	4/28	161	68.0	54.5	60.8	
Red Butte #1	4560	4/27	89	25.4	9.0	00.0	
Red Butte #1	4000	4/27	24	9.5	0.0		
Red Butte #3	3500	4/27	T	J. 3	0.0		
Red Butte #4	3000	4/27	Ō	0.0	0.0		
Red Butte #5	2500	4/27	0	0.0	0.0		
Red Butte #6	2000	4/27	0	0.0	0.0		
Seven Lakes #1	6800	4/2/ C	Ŭ	0.0	0.0		
Seven Lakes #1	6200	c					
Silver Burn	3720	4/27	31	12.1	0.0	2.9 h	
Siskiyou Summit	4630	4/4/ C	31	12.1	0.0	2.9	
Ski Bowl Road	6000	c					
South Fork Canal	3500	b					
Frap Creek		1/90	26	149	7.0	E o h	
•	3800	4/28 c	36	14.3	1.0	5.9 h	
Whaleback	5140		118	45.8	33.3	48.8h	
Windigo Pass	5800	4/27					



WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

as of
May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, ranchers and other water users in the Klamath Basin can expect excellent water supplies this summer. Cold temperatures last month delayed the spring runoff and April precipitation was 202 percent of average for the area, therefore streams will produce volumes greater than forecast a month ago.

SNOW COVER

The colder than average temperatures combined with the high April precipitation to produce abnormally high water contents in the snow over most of the basin. Snow courses located in the eastern part of the county and normally bare of snow May 1 currently have from 6 to 10 inches of water in the snowpack.

SOIL MOISTURE

Considering the lack of melt during the last month the soils are well wetted measuring 89% of capacity May 1.

RESERVOIR STORAGE

Clear Lake storage is 239,100 acre feet or 93% of average. Gerber contains 73,300 acre feet or 122% of average and Upper Klamath Lake is holding 543,900 acre feet which is 105% of the 1948-62 average.

STREAMFLOW

Forecasts of expected May-September streamflows are as follows:

Stream	Volume	Percent of 1948-62 Average
Clear Lake Res. Inflow	30,200 acre feet	174 percent
Gerber Res. Inflow	13,600 acre feet	219 percent
Sprague nr. Chiloquin	262,000 acre feet	138 percent
Upper Klamath Lake Net Inflow	549,000 acre feet	125 percent
Williamson blw. Sprague River	411,000 acre feet	122 percent

These very high percentages forecast are due partly to the runoff which was expected during April and did not materialize. Part of this runoff is now expected during the May-September period.

These forecasts assume near average conditions of precipitation and temperature during the forecast period.

0.75.744	FLOW PERIOD			
STREAM or AREA	SPRING SEASON	LATE SEASON		
Ft. Klamath Valley Lost River (Clear Lake) Lost River (Gerber) Lost River (Willow Res.) Sprague River Upper Klamath Lake Williamson River	Spring peak flows will occur this month	Excellent Excellent Excellent Excellent Excellent Excellent Excellent		

RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

			May 1,	1307	
RESERVOIR	USABLE	MEASURED (First of Month)			
NESER VOIR	CAPACITY	THIS YEAR	LAST YEAR	1948-62 AVERAGE	
Clear Lake Gerber Upper Klamath Lake	440.2 94.0 584.0	239.1 73.3 543.9	243.0 70.7 501.3	256.1 60.0 518.2	

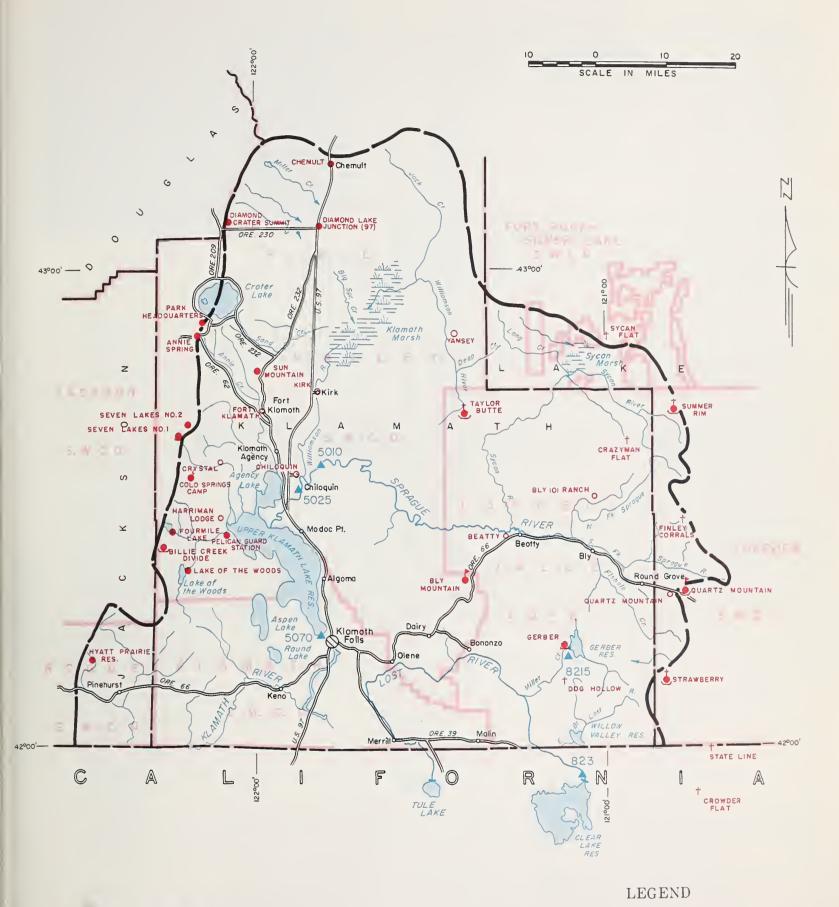
STREAMFLOW FORECASTS a(1,000 Ac. Ft.) as of May 1, 1967

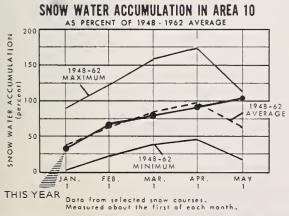
NO.	FORECAST POINT	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
823 8215 5010 5070 5025	Clear Lake Reservoir Inflow k Gerber Reservoir Inflow k Sprague near Chiloquin Upper Klamath Lake net Inflow k Williamson below Sprague River	30.2 13.6 262 549 411	May-Sept. May-Sept. May-Sept. May-Sept. May-Sept. May-Sept.	17.4 6.2 190 438 336	174 219 138 125 122

DIL MOISTURE		PROFILE	(Inches)	Y	SOIL MOISTU	RE (Inches)	
STATION		DEPTH	CAPACITY	DATE	THIS	LAST	T 2 YEARS
NAME	ELEVATION	DELTIT			YEAR	YEAR	AGO
Bly Mountain	5090	42	14.0	4-26-67	12.4	12.3	12.5

⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

KLAMATH WATERSHEDS





Wotershed Boundary Sub-watershed Boundary Soil Conservation District Bdry County Boundary Forecast Point Snow Course Aerial Snow Depth Gage COPCO Snow Station Soil Maisture Station Precipitation Gage Radio Telemetry OR-10c

SNOW		CUR	CURRENT INFORMATION			PAST RECORD	
SNOW COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONTENT (Inches		
NAME	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE	
Annie Spring	6018	4/30	134	56.0	44.2	45.4	
Beatty (PP&L)	4300	c			-		
Billie Creek Divide	5300	4/29	63	24.4	2.6	16.8 <i>h</i>	
Bly Mountain	5090	4/26	20	7.7	0.0	0.0 m	
Bly 101 Ranch (PP&L)	4800	С					
Chemult	4760	4/28	20	6.6	0.0	0.6 m	
Chiloquin (PP&L)	4187	c					
Cold Springs Camp	6100	4/26	99	39.7	25.4		
Crazyman Flate	6100	4/27	54	18.4	0.0		
Crowder Flat (Calif.)	5200	С					
Crystal (PP&L)	4200	С					
Diamond-Crater Summit	5800	4/24	104	39.2	31.0		
Diamond Lake Junction (97)	4600	4/24	0	0.0	0.0		
Dog Hollow e	4900	С					
Finley Corrals ^e	6000	4/27	50	17.0	0.0		
Fort Klamath (PP&L)	4150	c					
Fourmile Lake	6000	Ь					
Gerber	4850	С					
Harriman (PP&L)	4200	С					
Hyatt Prairie Reservoir	4900	4/28	25	8.3			
Kirk (PP&L)	4533	С					
Lake of the Woods	4960	4/27	36	11.2	2.0	6.3 h	
Park Headquarters	6450	4/28	161	67.7	54.5	60.8	
Pelican Guard Station	4150	4/29	0	0.0	0.0		
Quartz Mountain	5320	4/25	21	7.0	0.0	0.1 h	
Quartz Mountain (PP&L)	5504	4/25	31	10.6	0.0	0.0"	
Seven Lakes #1	6800	С]				
Seven Lakes #2	6200	С	1				
State Line e (Calif.)	5750	с					
Strawberry	5760	4/28	33	11.2	0.0	0.4 h	
Summer Rim	7200	4/27	78	26.5	6.0		
Sun Mountain	5350	4/27	79	29.5	16.4		
Sycan Flat e	5500	c	1				
Taylor Butte	5100	4/28	15	5.9	0.0		
Yamsey (PP&L)	4600	С					
					1		



WATER SUPPLY OUTLOOK LAKE COUNTY, GOOSE LAKE WATERSHEDS OREGON

as of
May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Above average water supplies are expected for most of Lake County water users this summer. Some shortages are foreseen late in the season in the Hart Mountain area.

SNOW COVER

Cold April temperatures and precipitation which was 234% of average last month combined to produce abnormally high water contents in the snowpack for May 1. Snow courses normally reporting no snow measured from 7 to 13 inches of water on May 1.

SOIL MOISTURE

Soil moisture is very good even though there was very little melt during April.

RESERVOIR STORAGE

Drews reservoir storage on May 1 was 53,100 acre feet which is average for the 1948-62 period. Cottonwood reservoir contains 3,700 acre feet and should fill as the Patton Meadows aerial marker measured 23.8 inches of water May 1.

STREAMFLOW

Forecasted April-September flows for the area streams are as follows:

Stream	Volume	Percent of 1948-62 Average
Chewaucan nr. Paisley	114,000	130%
Deep above Adel	85,000	118%
Drew Reservoir net Inflow	27,000 May-Se	pt. 237%
Honey Cr. near Plush	19,100	119%
Twentymile near Adel	26,000	118%

The high percentage for Drew Reservoir is due to the flow which did not materialize in April because of cold temperatures and is now expected during the May-September period.

These forecasts assume near average conditions of precipitation and temperature during the forecast period.

STREAM or AREA	FLOW PERIOD				
STREAM OF AREA	SPRING SEASON	LATE SEASON			
Chewaucan Crooked Creek Deep Creek Dry Creek East Side Goose Lake Guano Lake Honey Creek Lakeview Water Users Assn. Rock Creek (Hart Mtn.) Silver-Buck Creeks Summer Lake Thomas Creek Twentymile Creek Warner Lakes	Spring peak flows will occur this month.	Excellent Excellent Average Average Fair Excellent Excellent Fair Average Excellent Excellent Average Excellent Excellent Average Average			

RESERVOIR	USABLE	MEASUR	ED (First o	f Month)
RESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottonwood Drews Thompson Valley *Average for years of record after reconstruction.	8.7 63.0 17.4	3.7 53.1 b	4.0 64.2	6.3* 53.0

STREAMFLOW FORECASTS "(1,000 Ac. Ft.) as of May 1, 1967

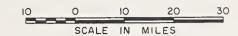
NO.	FORECAST POINT No. NAME				FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ¹
3840	Chewaucan near Paisley	103 114	April-June April-Sept.	79 88	130		
3715	Deep above Adel	80 85	April-June April-Sept.	68 72	118		
3385 3785	Drews Reservoir net Inflow d Honey near Plush	27 18.6	May-Sept. April-June	11.4 15.6	237 119		
3660	Twentymile near Adel	19.1 25 26	April-Sept. April-June April-Sept.	16.1 21 22	119 119 118		

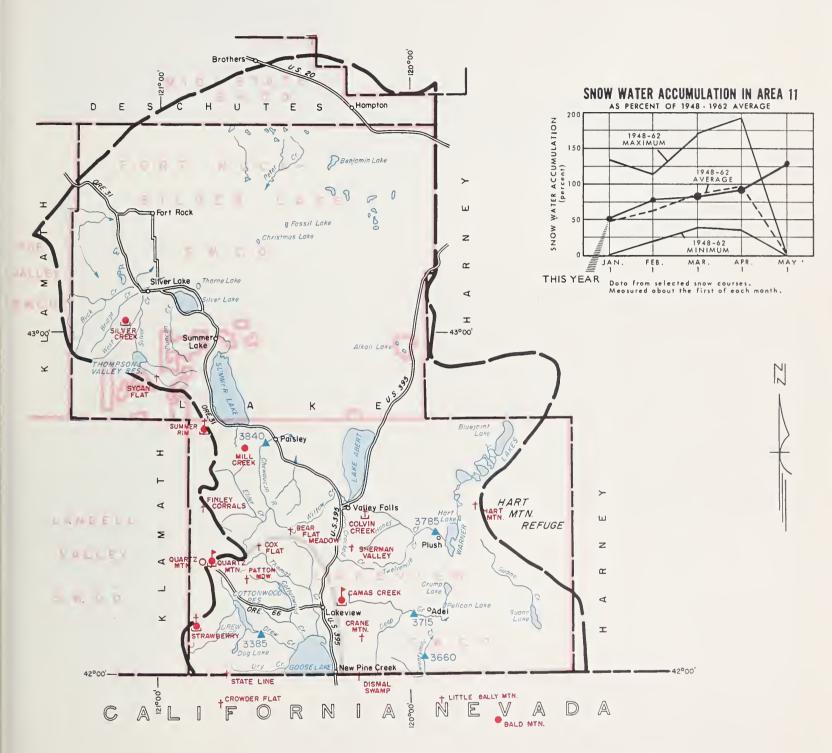
SOIL MOISTURE			(Inches)		SOIL MOISTU	RE (Inches)	
STATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO	
Camas Creek Quartz Mountain	5720 5320	42 48	14.5 15.3	4-28-67 4-25-67	12.7 9.8	13.1	13.2

NOW		CUR	RENT INFORMA	TION	PAST RECORD		
SNOW COURSE			SNOW DEPTH	WATER CONTENT	WATER CONTENT (Inche		
NAME	ELEVATION	SURVEY	(inches)	(Inches)	LAST YEAR	1948-62 AVERAGE	
Adin Mountain (Calif.)	6350	5/2	65	22.5	0.0		
Bald Mountain (Nev.)	6720	С					
Bear Flat Meadow e	5900	С					
Camas Creek	5720	4/28	39	13.3	0.0		
Cedar Pass (Calif.)	7100	4/28	78	22.3	0.0		
Colvin Creek e	6550	С					
Cox Flat e	5750	c .					
Crane Mountaine	6020	С					
Crowder Flate (Calif.)	5200	С					
Dismal Swamp e (Calif.)	7000	С					
Finley Corrals e	6000	4/27	50	17.0	0.0		
Hart Mountain e	6350	. с					
Little Bally Mountain (Nev.)	6600	С					
Mill Creek	6200	С					
Patton Meadows e	6800	4/27	70	23.8	5.0		
Quartz Mountain (PP&L)	5504	4/25	31	10.6	0.0	0.0	
Quartz Mountain	5320	4/25	21	7.0	0.0	0.1 h	
Sherman Valley e	6600	c					
Silver Creek	4900	С					
State Line (Calif.)	5750	С					
Strawberry	5760	4/28	33	11.2	0.0	0.4 h	
Summer Rim	7200	4/27	78	26.5	6.0		
Sycan Flat e	5500	c					

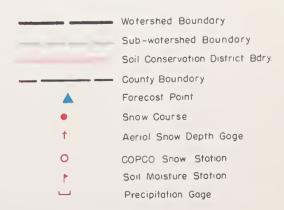
⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

LAKE COUNTY, GOOSE LAKE WATERSHEDS





LEGEND



Lake County, Goose Lake Watersheds



WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

as of
May 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Harney basin ranchers and other water users can expect average to excellent water supplies this summer.

SNOW COVER

April precipitation in the county was 198% of average. From the limited snow measurements on May 1 it can be seen that the snowpack is abnormally heavy for this time of year.

SOIL MOISTURE

The soils are at 88% of capacity and this moisture will favor the snow-melt runoff.

STREAMFLOW

Forecasts of expected streamflow during the April-September period are as follows:

Stream	Volume	Percent of 1948-62 Average
Donner und Blitzen River	79,000	127%
Trout nr. Denio	11,000	131%
Silvies nr. Burns	90,000	91%
Silver nr. Riley	21,000 April-July	95%

These forecasts assume average temperatures and precipitation will prevail from now until the end of the forecast period.

RESERVOIR STORAGE (1,000 Ac. Ft.) May 1, 1967

STREAM or AREA	FLOW	PERIOD	RESERVOIR	USABLE	MEASURED (First of Month)			
	SPRING SEASON	LATE SEASON	NESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	1948-62 AVERAG	
Catlow Valley Cow Creek Donner und Blitzen River Mill-Coffeepot Creeks Rattlesnake Creek Silver Creek Silvies River Soldier-Prather Creek Frout Creek Whitehorse Creek	Spring peak flows will occur this month	Fair Fair Excellent Average Average Average Average Excellent Average						

STREAMFLOW FORECASTS a (1,000 Ac. Ft.) as of May 1, 1967

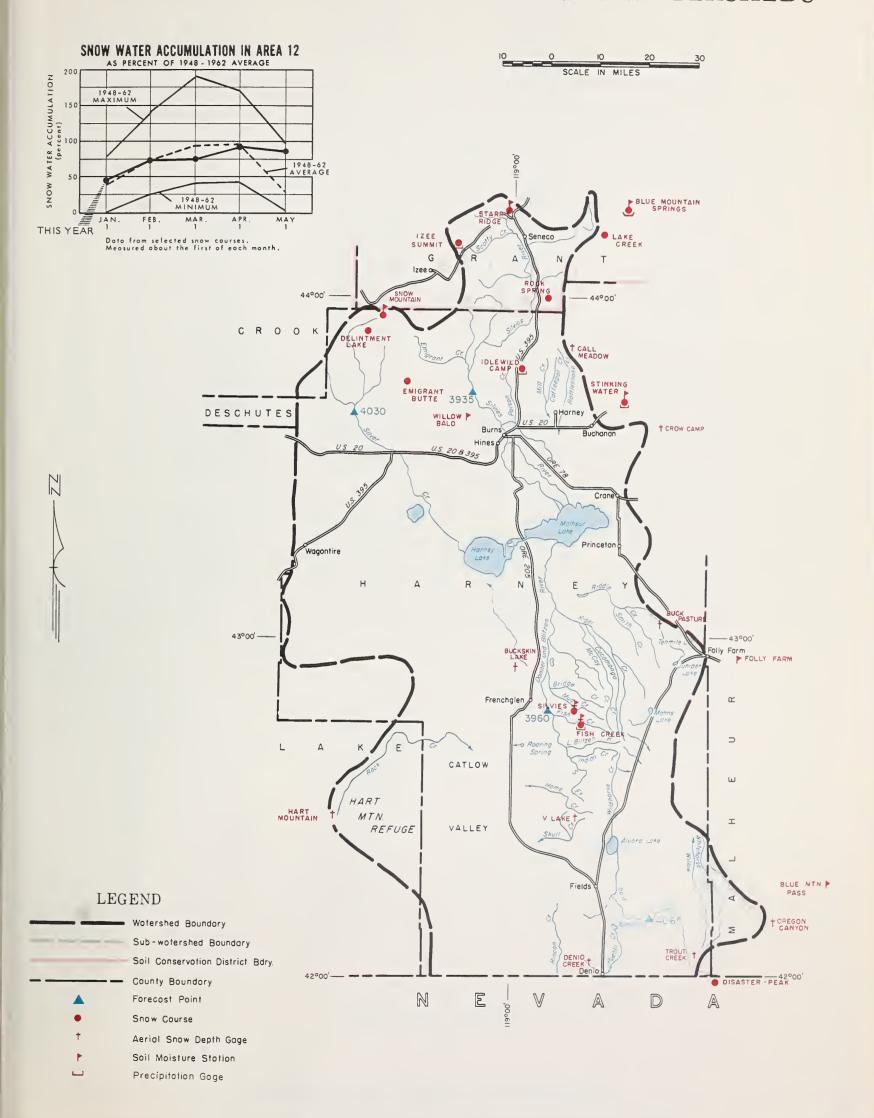
NO.	FORECAST POINT NO. NAME		FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ¹
3960	Donner und Blitzen near Frenchglen	65	April-June	52	125
		79	April-Sept.	62	127
4030	Silver near Riley	21	April-July	22	95
3935	Silvies near Burns	87	April-June	96	90
		90	April-Sept.	99	91
4065	Trout near Denio	10.0	April-June	7.4	135
		11.0	April-Sept.	8.4	131

SOIL MOISTURE	PROFILE	(Inches)	SOIL MOISTURE (Inches)				
STATION		DEPTH	CAPACITY	DATE	THIS	LAST	2 YEARS
NAME	ELEVATION	DELTIN	DEI III GALAGIII		YEAR	YEAR	AGO
Blue Mountain Springs	5900	42	16.9	4-28-67	12.1	12.8	13.5
Fish Creek	7900	48	15.0	Ь			
Folly Farm	4450	30	12.5	b			
Silvies	6900	48	16.4	4-1-67	14.5 f	11.6 f	13.4 ^f
Snow Mountain	6300	48	16.7	3-30-67	15.5 f	12.3 ^f	15.9 ^f
Starr Ridge	5150	36	10.6	4-27-67	10.5	10.4	10.3
Stinking Water Summit	4800	48	21.9	Ь			
Willow-Bald	5000	24	6.6	5-1-67	6.6		6.5 f

SNOW	CUR	RENT INFORMA	-PAST RECORD			
SNOW COURSE		DATE OF	SNOW DEPTH	WATER CONTENT	WATER CONTENT (Inches	
NAME	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	1948-62 AVERAGE
Blue Mountain Springs	5900	4/28	51	17.5	0.0	7.8 m
Buck Pasture e	5700	С				
Buckskin Lake ^e	5200	С				
Call Meadows e	5340	С				
Crow Camp e	5500	c _.				
Delintment Lake	5600	С				
Denio Creeke	6000	С				
Disaster Peak (Nev.)	6500	С				
Emigrant Butte	5000	· c				
Fish Creek	7900	С				
Hart Mountain e	6350	С				
Idlewild Camp	5200	4/28	15	5.6	0.0	
Izee Summit	52 93	4/27	23	7.1	0.0	1.6 m
Lake Creek	5120	4/27	20	7.6		
Oregon Canyon e	6950	С				
Rock Spring	5100	4/28	8	. 2.9	0.0	
Silvies	6900	С				
Snow Mountain	6300	С				,
Starr Ridge	5150	4/27	9	2.5	0.0	0.4^{h}
Stinking Water	4800	С				
Trout Creeke	7800	С				
"V" Lake ^e	6600	С				

⁽a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HARNEY BASIN WATERSHEDS



Harney Basin Watersheds

LOCATION ELEV.	NUMBER NAME LOCATION	ELEV. I						
OWYHEE, MALHEUR WATERSHEDS (1)	15H2Oa Merritt Mountain (Nev) 10 46H 5	NAME	COCATION ELEV. NUI	MBER NAME	LOCATION ELEV. SEC. TOP. HOE.	NUMBER NAME LOCATION ELEV.	NUMBER NAME LOCATION ELEV.	NUMBER NAME LOCATION ELEV.
Owyhee River	1607M Mud Flat (Ida) 34 98	SE 7200 18E20 Eldorado Para	20 14S 38E 4600 181	D12m Ladd Sunmit E23 Little Alps	5 5S 39E 3730 10 7S 37E 6200	UPPER JOHN DAY WATERSHEDS (4)	Middla Fork Williamette River	Pacific Power and Light Company's
Battle Creek INev) 31 46N 58E 7800	17H6a Quinn Ridge (Nev) 9 47N 47 16Gllap* Red Ganyon (Ida) 32 11S	18E18 Lake Creek 18E2a Logan Valley	10 16S 33 E 5120 181	E30 Little Antone E26 Power Plant D7 Taylor Green	1 7S 37E 5000 33 7S 38E, 3990	Upper John Doy River 19D2P Arbuckle Mountain 33 4S 29E 5400 18D12MP Battle Mountain Summit 29 3S 31E 4340	22F3 Casende Summit : 23S 6E 4880 22F6 McGredie Springa 36 21S 4E 2120 22F8 Meridian Dam 13 10S 1W 750	Snow Stations 1 Beatty (FPML) 22 36S 12E 4300 10 Ply 101 Rauch (FPML) 22 35S 14E 4800
195M 8ig Bend (Nev) 30 45N 56E 6700 8ig Bend 4 38S 42E 5290 8ig Bus Mtn Pass 8uskkin, Lower (Nev) 25 45N 39E 6700 8ig Buskkin, Lower (Nev) 11 45N 39E 7200	15H3A 76 Creek (Nev) 36 44N 51 16F3AP* Silver City (Ida) 6 59	3E 6800 18E32p" S. Fk. Willow Cr.	23 18S 32E 5100 2 16S 37E 5500	Pine Creek	3 6S 42E 5740	19E2M Beech Creek Summit 4 12S 30E 4800 18E16MP Blue Mountain Spring 21 15S 35E 5900	22F7 Cakridge 16 218 3E 1110	3 Chiloquin (PP&L) 34 34S 7E 4187 4 Crystal (PP&L) 26 34S 6E 4200
Buckskin, Upper (164) 129 128 5W 5600 1600 1600 1600 1600 1600 1600 1600	16G1 South Mountain No.2(Ida) 35 328 33	SE 6900 SW 6340 BURNT, POWDER, PINE,	GRANDE	D8 Schneider Meadows Grande Ronde R	35 6S 45E 5400	18E13M Blue Mountain Summit 6 123 36E 509S 19E3MP Derr 14 13S 23E 5670 18E27a East Fork Canyon 15 15S 32E 5700	22F2P Wildo Lake 15 21S 6E 5500 22F14 • Willamette Pasa 33 24S 5½E 5600	5 Fort Klamuth, (PP&L) 22 33S 7½E 4150 6 Kirk (PP&L) 1 33S 7E 4533 9 Quarts Mountain (PP&L) 33 37S 16E 5504
Disaster Feak (Nev) 2 45N 52E 7000	15H9MP Taylor Canyon (Nev) 35 39N 51 16H7a Toe Jam (Nev) 29 40N 55	3E 6200	171	D1 Ameroid Lake No. 1 D2P Ameroid Lake No. 2	16 4S 45E 7480 16 4S 45E 7300	18E8 Gold Center 21 98 36E 5340 18E24a Indian Cr. Butte 5 158 33E 6550 19E9P 1zee Summit 28 16S 29E 5293	Coast Fork Willamatte Rivar 22F9 Chumpion 12 238 18 4500 22F10 Golden Curry Creek 1 238 18 3000 12 2	8 Harrimin Lodge (PIWL) 3 36S 6E 4200 12 Yunney (PFRL) 20 31S 11E 4600
Fish Creek Fish Creek 8 30S 38E 4450 Folly Ferm Summit (Nev) 33 46N 58E 6800	16GGMA Triangle (Ida) 25 75 18G5a Trout Creek 10 415 33	5E 5700 18E14 Barney Creek 3W 5150 18E13M Blue Mountain Summit	183	DlOa Bald Mountain	13 7S 37E 7125 14 4S 41E 6700 8 5S 37E 5340	18D6P Lucky Strike 28 38 32E 5050 20EMP Marks Greek 25 12S 19E 4540	22F13 Laying Grook R. S. 31 21S 1E 1200 22F12 Lund Park 22 22S 1E 1740	LAKE COUNTY, GOOSE LAKE WATERSHEDS (11) Goose Loke
1527 (Nev) 31 43N 54E 6700 1527 (Rev) 31 45N 56E 6600 1535 (Gold Creek (Nev) 31 45N 56E 6600 1535 (Granite Peak (Nev) 22 44N 39E 7800	1867a "V" Leke 31 35½8 37 16612a Vaught Ranch (Ida) 10 11s 16613a War Eagle (Ida) 20 58	2 Eldorado Pass		D8P County Line D6P Lucky Strike D5 Meacham 24	28 4S 34E 4800 28 3S 32E 5050 & 25 1S 35E 4300	18E7 Olive Lake 14 9S 34E 6000 18D7 Schoolmarm 28 4S 34E 4775	22F11 Wenver Greek 35 22S 16 24/10 Mory's River	20G15n Bail: Flat Mondow 27 36S 19E 5900
1724 Under Pasture (Ida) 31 8S 2W 5800 light Pasture (Nev) 18 42N 53E 6800 light Jack Creek, Lover (Nev) 9 42N 53E 7250 light Streek, Upper (Nev) 9 42N 53E 7250	Malheur River	3W 7700 18E9 Tipton Powder Rive	34 10S 35½E 5100 17I	D13a Mirror Lake D6M Moss Spring	34 48 44E 8200 28 38 41E 5850	19F1M Snow Mountain 1 198 26E 6300 19E7M Starr Ridge 20 15S 31E 5150 18E9 Tipton 34 10S 3518 5100	23E1 Mary's Fork 21 128 78 3620 ROGUE, UMPQUA WATERSHEDS 191	20G16a Grane Mountain 13 40S 21E 6020 20H2a Growder Flut (Cn1) 30 47H 11E 5200
1657 Jack Feak (Nev) 28 42N 53E 8420 1672 Jack Peak 0 30S 46E 4390	18E14 Barney Greek 16 14S 36 18E16MP Blue Mountain Spring 21 15S 39 18F6a Buck Fasture 21 20S 38	SE 5900 LOPE SHITTING SKI MILL	18 7S 37E 7125 17I	Dlla Standley D7 Taylor Green	28	18E25MP Williams Ranch 20 15S 32E 4500 UPPER DESCHUTES, CROOKED WATERSHEDS (%)	23G4 Althouse 17 41S 7W 4530	20017# Fitton Mondow 28 38S 18E 6800 2006MP Quarts Mountain 2 38S 16E 5320
1785 Laurel Draw (Nev) 20 45N 53E 6700	18E21a Bully Creek 10 175 37 18F7a Call Neadows 29 205 37	18 5700 17EIMP Dooley Mountain 18E3 Eilertson Meadows		D3M Tollgate D15a TV Ridge mnoho River	31 4N 38E 5070 12 2S 43E 7000	Upper Deschutes River 21E11 Black Fine Spring 14 168 9E 4600	2266 Annle Spring 19 318 6E 6018	2011a State Line (Col) 21 48N 11E 5750 2019AP Strumberry 4 40S 16E 5760 Abort Loko
1701a Louse Canyon 27 405 44E 6440 1763 Kartin Creek (Nev) 18 44N 40E 6700	17F2e Cottonwood-Indian 10 198 33 18E19M Crane Prairie 24 168 34	E 4320 1 18F64 Cond Center	21 9S 36E 5340 17E 4 9S 38E 6775 17E	D1 Ameroid Lake No. 1 D2P Ameroid Lake No. 2	16 4S 45E 7480 16 4S 45E 7000	21FS Caldwell Ranch 30 21S 8E 4400 22F3 Cascade Summit 7 23S 6E 4880 21F11 Chemult 21 27S 8E 4760	22013 811116 Creek Divide 40 368 5E 5300 22030 Cnliban 16 408 1E 6500 22037 Dandwood Junction 8 385 4E 4600	20015n Bear Plat. Mandow 27 36S 19E 5900 20018AP Colviu Cronk 12 36S 21E 6550
			y 40 Jon 4770 £71	D14a Big Sheep UMATILLA, WALLA WALLA, W		21F2OP	22819 Diumond-Crater Summit 14 288 68 4800 23614P Flail Luke 3 378 48 4865 22812 Fourmile Lake 9 368 58 6000	70011n Cox Flut 16 778 18E 5750
C 157, M	A S H 1 N	G T 10 N 118*	117*	LOWER JOHN DAY WATER Umatilla Rive		21E6 Hogg Pass 74 135 74E 4755 21F4 Hungry Flat 30 185 11E 4400 21F6 a Irish-Taylor 25 20S 6E 5500	2303 Grayback Penk 9 408 5W 6000 22026 Roward Prairie 32 385 48 4500	2006MM Quarta Mountain 2 388 16E 5320 20010n Sharman Vallay 15 378 21E 6600
CATSON -		/	181	D2P Arbuckle Mountain D14m Athena-Weston Summit D12MP Battle Mountain Summit		21F17 Mowlch 29 25S 25E 7700 21F10 New Crescent Lake 11 24S 6E 4800 21F19P New Dutchman Flat #2 21 18S 9E 6400	20016 Nyntt Prairia Raparvoir 15 308 3E 4900 2308 Eling Mountmin No. 1 8 338 4W 4800 2309 Eling Mountmin No. 2 33 428 4W 3646	Summor Lako 2062AP Silinmor Rfm 15 333 16E 7200
COLUMBIA		I Bola Rivi	181	D4M Emigrant Springs D6P Lucky Strike	29 1N 35E 3925 28 3S 32E 5050	21F13P Paullne Lake 34 21S 12E 6330 21F15 Paullne Prairie 28 21S 11E 4285 21F3 Tangent 28 18S 10E 5400	23610 King Mountain No. 2 29 328 AW 2550 23611 King Mountain No. 4 20 328 AW 1779 22672 Little Rad Mountain 25 408 2W 6500	Silver Lake Silver Creek 25 & 26 293 13E 4900
PORTI	COLUMBIA RIVER	Congrillo River Table 1803	181		% 25	21E15 Three Creeks Butte 27 16S 9E 5200 21E13 Three Creek Meadows 34 16S 9E 5650		20013n Syonn Flut 25 318 148 5500 Warner Leke
D WASHINGTON MU	LTMOMAH RIVE RIVE RIVE RIVE RIVE RIVE RIVE RIVE	1904	TWBIR 181	Walla Walla Ri	ver 35 4N 37E 4300	22F2 P Waldo Lake 15 21S 6E 5500 22F14 × Willamette Pass 33 24S 54S 5600 22F15 Windigo Pass 32 25S 6E 5800	22010F Seven Lakes No. 1 3 3/3 58 64000 2201 Seven Lakes No. 2 26 335 58 6200 2202 514ver Burn 30 305 48 3720	2018MF Chann Crook 5 393 71R 5920 20016n Cruno Maintalli 13 403 71K 6020 2013n Dimmi Summy (Cnl) 31 488 16E 7200
ATILLA MOOK	Clas Sznor P 2007 Represented to Sznor P 2007 Represented	(8015) (805)		D3M Tollgate D17 Weston Mountain	32 4N 38E 5070 25 4N 35E 2700	Crooked River	22020 Stokiyou Summl 17 408 2E 4630	1961
TAMHILL	LACKAMAS SHERMAN GILLIAM	18012 1807 1808 170 2 170	/	Willow Cree D2P Arbuckle Mountain	33 4S 29E 5400	19E3MP Dorr 14 135 23K 5670 20ELMP Marks Creek 25 12S 19E 4540 20E2 Ochoco Meadows 21 13S 20K 5200	2201 Whateback 3 315 28 5140	Out Out
	210 6 2011 3 1013 W. A S. (0 0)	1903	18.	ElP Anthony Lake	18 7S 37E 7125	19F1M Snow Mountain 1 19S 26E 6300 19E4 Tamarack 8 15S 25E 4800	22F9 Champion 12 23S 1E 4500 22F18 P Dimmond Lake 29 27S 6E 53F5	10840 Little Britis Mt. (Nov.) 8 45N 198 6600 HARNEY BASIN WATERSHED (12)
POLK RIVE MAR I	3° N	18E7 18E8 18E5 BE6	Biss		5.11	HOOD, MILE CREEKS LOWER DESCHUTES WATERSHEDS 161 Hood River	2307 Flen Valley Summit 10 328 10W 2300 22F16 Horth Unppun 19 268 6R 4219 22F23 Red Butte No. 1 36 278 2W 4560	Silvios River - Silver Creek 1887n Gell Mendown 29 208 338 5340
Son Son	22EZANET ZIES JEFFERSON	E L E R 19629 (SEE) RICK	K E R		12	21D6P Brooks Meadows 2 25 10E £300 21D25M Cooper Spur 6 25 10E 3490 21D1 Greenpoint Reservoir 28 2N 9E 3400	221.74 Red Butte No. 2 30 275 1W 4000 221.75 Red Butte No. 3 30 273 1W 3500 221.86 Red Butte No. 4 36 273 1W 3000	19F2 Dell'Informet Luke 28 193 268 5600 19F3 Enfigerate Butto 14 213 276 5000 10F3P Information 27 203 318 5000
E LINCOLN ST. N	2 ZOEL	19E3 Jan Day myel 18E20	2 /8	LEGEND		21D20 Knebal Springs 31 1S 11F 3850 21D23 Parkdale 6 1S 10E 1770	22F27 Rad Butto Ro. 5 20 27S 1W 2500 22F28 Rod Butto Ro. 6 17 275 1W 2000 22F17 Trap Creek 1 275 4K 3800	19E9P 1xxx 30mm14 28 163 29K 5293
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	22514	Malhour Late	HEUR			21D12 Clear Lake 29 48 4E 3500 21D22 Clear Laky Experimental 29 4S 9E 3500	21F18 Diamond Lake Jet. (77) 1 293 78 4600 21G6a Dog Hollow 1 400 14E 4900	1865ii Trout Greik 10 418 38K 7800 Hernay Loka
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The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

Idaho Cooperative Snow Surveys Nevada Cooperative Snow Surveys

Oregon State University

Oregon State Engineer and Corps of State Watermasters

Oregon State Highway Engineers

Soil and Water Conservation Districts of Oregon

COUNTY

Douglas County Water Resources Survey

FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service

Department of Commerce

Weather Bureau

Department of the Interior
Bonneville Power Administration
Bureau of Land Management

Bureau of Reclamation
Fish and Wildlife Service

Geological Survey National Park Service

Department of National Defense Corps of Army Engineers

PUBLIC UTILITIES

Pacific Power and Light Company Portland General Electric Company California-Pacific Utilities Company

MUNICIPALITIES

City of Baker City of La Grande City of The Dalles City of Walla Walla

IRRIGATION DISTRICTS

Arnold Irrigation District Associated Ditch Companies Burnt River Irrigation District Central Oregon Irrigation. District East Fork Irrigation District Grants Pass Irrigation District Hood River Irrigation District Jordan Valley Irrigation District Juniper Flat Irrigation District Lakeview Water Users, Incorporated Medford Irrigation District Middle Fork Irrigation District North Board of Control - Owyhee Project North Unit Irrigation District Ochoco Irrigation District Rogue River Valley Irrigation District South Board of Control - Owyhee Project Squaw Creek Irrigation District Talent Irrigation District Tumalo Project Vale-Oregon Irrigation District Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
The Crag Rats, Hood River, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE 1218 S.W. WASHINGTON ST. PORTLAND, OREGON 97205

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